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## **Inside poverty and development in Africa: critical reflections on pro-poor policies**

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## Inside poverty and development in Africa

# African Dynamics

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Volume 7

Inside poverty and development  
in Africa  
Critical reflections on pro-poor policies

*Edited by*  
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## Introduction: Inside poverty and development in Africa

Marcel Rutten & André Leliveld

### Introduction

Mary Muli was forced to sit it out inside the Nakumatt supermarket for four hours on 31<sup>st</sup> May 2008 following a management order to lock all the doors when riot police started firing teargas to try to disperse a crowd of protesters outside. They had taken to the streets of Nairobi to vent their anger at the rapidly rising cost of living, in particular food and fuel prices. And it is not just the urban poor who have been experiencing tough times. Last year Mary sold all her cows and goats after an outbreak of Rift Valley Fever and two vets who had been checking the meat of an infected goat had died. Prices were then fetching as little as Ksh 600 for a mature goat compared to the normal Ksh 2,500. Now prices have gone up to at least Ksh 1,000 for a young goat. But, more importantly, the prices of staple foods have skyrocketed since the 2007 elections. As a result of the post-election violence and a long-running land conflict in the country's food basket in western Kenya, the price of maize has gone up from Ksh 10 to Ksh 35 per kg. Maize meal (*unga*) now costs Ksh 75 per 2 kg (up from Ksh 35). The burning of rice fields in Mwea has doubled rice prices but beans topped the list, going up to Ksh 95 per kg from Ksh 20. To make matters worse, the long rains have failed to mature Mary's Katumani maize that should be ready for harvesting by late June, and army worms have attacked it too. The price of fertilizer, needed to boost the growth of *sukuma wiki* (kales), has tripled in price and due to the poor soils in Mary's area, fertilizer has to be added twice every three weeks in order to harvest a good crop. However, nowadays, many people cannot afford to buy fertilizer so there will be lower outputs. Higher petrol prices have also prevented the hiring of a tractor to plough the field this year. And the cost of kerosene, which is used for cooking and lightning, has doubled too. In addition, Mary's kids had to go back to

school and although the Kenyan government declared that primary education would be free, the influx of extra students and the higher cost of living have forced government-run schools to demand a foundation fee (Ksh 2,000/annum) and a development fee (Ksh 6,000/annum) to supplement the Ksh 10,000 the government donates per student annually. Kenya has experienced impressive growth figures in the last five years but ordinary Kenyans are still wondering how to escape the poverty trap.

The rising cost of staple foods across Africa has already caused food riots in a number of countries (Somalia, Cameroon and South Africa). The African Development Bank and the World Bank are setting aside billions of dollars for interventionist loans for poor countries, while the UN is calling for a New Deal for Africa and its agriculture (*Daily Nation*, 18/05/08). World stocks of grain have fallen in the last decade from 6 months to 40 days and the global food shortage has caused the price of food to rise. Increased wealth in China and India, which is fuelling greater demands for meat that in turn demands more grain, are among the reasons mentioned for this. Other factors include a growth in the world's population, a cut in farmers' subsidies in industrialized countries, severe droughts and flooding that have reduced crop yields, market speculation, and higher demands for crops to be set aside for biofuels. Higher food prices affect the poor in particular. The Kenyan government, in partnership with the Alliance for Green Revolution in Africa, the Equity Bank and the International Fund for Agricultural Development have signed an agreement to supply loans to needy farmers, rural input suppliers, seed wholesalers and food traders. Other countries like Ethiopia, Mozambique and South Africa have put in place or raised cash transfer programmes. And Cameroon has slashed its import duty and reduced or dropped taxes on certain goods, like rice, fish, flour and cooking oil (*Daily Nation* 18/05/08).

The above narrative shows the complex mix of factors that for many Africans still determines whether or not one will be able to afford at least one meal a day. Over the years, policy makers in decision-making entities from a local to international level have been struggling to stimulate economic growth and combat poverty in Africa. Their efforts have been guided by an outspoken mixture of simple concrete ideas and, especially after World War II, grand theories. Results in steering development and reducing poverty have varied over the years and across and within countries. The uneven, unstable and irregular development patterns on the African continent have puzzled development planners and scholars for decades and the introduction of terms like 'arrested development' (Fieldhouse 1986) and 'stalled development' (Leonard & Straus 2003) are examples of their attempts to classify these development trajectories. The search for the 'African dummy' that could explain growth and development patterns of African countries has received attention in academic research on

Africa.<sup>1</sup> Among the media and (western) policy makers the spotlight has, however, been on the natural and manmade disasters that have resulted in poverty, famine, civil strife and corrupt regimes and the emphasis has been, at least until recently, on the failures in Africa rather than the successes and achievements. The thinking behind this Afro-pessimism includes the perception of hopelessness and tragedy that seems to pervade the continent despite years of international support (see, for example, Chabal & Deloz 1999, Calderisi 2006, Ellis 2005, Kaplan 1996). However, a careful analysis of African countries destroys this myth of an all-encompassing bankruptcy. The divergence of African growth paths is clearly shown in the World Bank's *Africa Development Indicators* publications. A review of average annual GDP growth for the 1997-2006 period divides African countries into four categories ranging from under- to out-performers<sup>2</sup> and underlines the diversity in economic progress in time and place for Africa, like other continents. Other historical and micro-survey evidence, however, supports less pessimistic conclusions (Sender 1999). For example, in areas such as life expectancy, infant mortality, female literacy and secondary schooling, access to drinking water, communications infrastructure, electricity production, and networks of transport and power substantial improvements over the last four decades can be observed.<sup>3</sup> Africa is also realizing rapid growth in food crops, and the expansion of the newer, higher-value commodities produced in the agricultural sector has been even faster.<sup>4</sup> And the agricultural workforce in

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<sup>1</sup> Examples can be found in Chabal & Deloz (1999), Ghura & Hadjimichael (1996), Gunning & Collier (1999), Kamarck (1977, 2000), Ndulu & O'Connell (1999) and Ndulu *et al.* (2008).

<sup>2</sup> These groups are countries with no or little growth, slow growth, sustained growth, and oil-exporting countries. The bottom group comprises 13 African countries where some 20% of all Africans live and averaged a 1.3% growth rate. Some of these countries (Kenya, Côte d'Ivoire, Zimbabwe, DRC) have underperformed for various reasons but each of them has huge potential and has shown better scores in the past as well as in recent years. The nine 'slow growers', accounting for 16% of all Africans, averaged a 3.4% growth rate. In the group of sustained growth (5.5% average), Mozambique (8.4%) and Rwanda (7.9%) performed the best. The average score for oil-producing countries is 7.4% but again there is a mixed picture ranging from Gabon (1.7%) through Nigeria (4.0) to Equatorial Guinea (20.9%) (World Bank 2006).

<sup>3</sup> Some of the successes, such as higher life expectancy, are being threatened due to the rise in HIV/AIDS that has hit the continent more than any other region in the world.

<sup>4</sup> Sender (1999: 97-98) argues that African agricultural growth has been as rapid as could reasonably be expected. For example, the compound growth rate of agricultural production in Sub-Saharan Africa as a whole over the period from 1965 to 1995 was 2.34%, whereas the rate of growth in agricultural output in now-advanced capitalist economies (including Japan) during the early stages of their industrial-

Africa has achieved significant productivity gains.<sup>5</sup> Yet all of these achievements need to be balanced against the economic and environmental hardships that are around the corner in Africa and in the wider global setting of which Africa is a part.

Thinking about development in Africa requires an appreciation of at least two sets of ideas. Africa is 'the land of our civilization and of rich natural resources' as well as the land of the most perplexing issues of our time: slavery, famine, refugees, ethnic conflict, repressive and lethargic systems of governance' (Veit *et al.* 1998: 1). Both counts are true. It is not sufficient to stress the ubiquity of failure, malnutrition, disease, predatory states and war to be overwhelmed by revulsion at the misery still being experienced by so many Africans. In addition, one also has to recognize that important aspects of the lives of millions of ordinary people have been transformed over the last five decades, showing that Africa has great human and material strengths that justify a greater interest on the part of public and private investors in its economy and its people. It is on the basis of a clear perception of the complexity and unevenness of all these processes, as well as a critical analysis of the consequences of (economic) policies in the past, that politically realistic development strategies can be formulated (Bernstein 1990, Kilby 2003, Sender 1999).

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zation was generally below 1.5% per annum for long periods. Disaggregated figures show that over the same period maize production increased by 3.25% per annum and rice production increased by 3.4% per annum. Unsurprisingly, the growth rate for some of the newer, higher-value commodities produced in the agricultural sector has been even faster. For example, poultry production (4.6% per annum), tea production (5.6%), fruit and vegetable exports (over 5%) and, most spectacularly, paper and cardboard production (over 9%).

<sup>5</sup> The figures in Sender (1999: 98-99) could be illustrative here. Between 1980 and 1995, the growth of the economically active population in agriculture was, on average, considerably slower than the growth in agricultural production: 2.2% versus 2.8% annually. Further evidence of rising productivity and technological change in the agricultural sector can be seen at both the macro and micro levels. African agricultural output has not increased simply because of an extension in the area cultivated, although such an expansion has certainly occurred. For example, there was a 25% expansion in the area under permanent cropping between 1965 and 1995 (FAOSTAT 1997 cited in Sender 1999). In the countries for which data is available, the per-hectare yields of a range of crops, including maize, rice, wheat, potatoes, cassava and tea, have increased significantly. Of course, grain output per hectare was very much higher and has increased at a much faster rate in many other developing regions, particularly in East Asia, in recent decades. However, the recent agricultural performance of these developing economies was achieved on the basis of initial structural conditions that cannot legitimately be compared to those in rural Sub-Saharan Africa in the second half of the 20<sup>th</sup> century. In East Asia, for example, more than a third of arable land is irrigated compared to about 7% in Sub-Saharan Africa.

This book aims to contribute to a clearer perception of the complexity and variety of development processes in Sub-Saharan Africa. The contributions in it are rooted in extensive empirical research at local, regional and/or national level in different African countries, including Chad, Ethiopia, Kenya, Lesotho, South Africa and Uganda, while some take a pan-African perspective. All however give insight, from different analytical perspectives, into the heterogeneity of poverty and development processes and draw their conclusions based on current and past development policies in their particular field. The authors have not analyzed development policies in terms of their effects and impact on poverty reduction – as is done in evaluation studies – but instead confronted the ideas, concepts and assumptions that lie behind pro-poor policies with their empirical findings.

By way of background here, a brief historical overview of the development policy agenda in Africa and the ideas and theories that have been influential in the formulation and implementation of these policies is presented. Then we introduce the specific contributions and summarize the main findings.

## Development policies in Africa

Africa has a long history of policies aimed at reducing poverty and improving the living conditions of its population. Many of these policies show a remarkable uniformity across the continent and over time, though their effects and impact differ widely, ranging from no effect at all to the structural transformation of economies and societies. This remarkable uniformity has much to do with Africa's colonial history and its aid dependency, which led to the West's export of blueprint models of development to Africa in the post-colonial era. Of course, looking in detail reveals subtle differences among countries but, generally, several generations of policies – with their different underlying ideas and theories – have been widely and well received in Africa. As Easterly (2001) points out, policy formulation and implementation have followed an iterative process: ideas and theories inform policies, whose implementation leads to results, of which the evaluation and analyses give rise to new insights, new policies and new results.

### *Policies through time*

During the early colonial days, improvements in the living conditions of local Africans were not the primary objective of most governments. They mainly concentrated on making themselves financially self-supporting by taxing the local population and transferring resources such as land to European settlers at cheap prices, especially in the British colonies. From the 1920s onwards, a few plans for socio-economic development were put together and revenue was put



into establishing social services in health, education, infrastructure and agriculture, notably improved crops and breeds (Iliffe 1999: 212).<sup>6</sup> The Great Depression in the 1930s disrupted these initiatives<sup>7</sup> and government revenue all over Africa subsequently eroded.

It was only after World War II that, with booming prices and financial support from overseas, more substantial development efforts could be put in place, including economic support for the 'African regions'. Oliver & Atmore (1977: 214) explained this increase in financial support from the colonial powers as being primarily a result of western governments' taxation policies. During the war they had taken a much larger proportion of their citizens' incomes and this continued in the post-war years to create the new welfare state in industrialized countries, including subsidized housing, unemployment and social security benefits and national health schemes. A proportion of this tax revenue was set aside for overseas development. Oliver & Atmore (1977) also mention self-interest as a reason for the growing increase in development support, with international criticism forcing the colonial powers to improve the living conditions of the local population if colonialism was to continue. New legislation in the United Kingdom and France released funds to support development plans in their colonial territories. And it should be noted that local demands by Africans in countries such as Kenya, South Africa and Uganda as early as the 1910s and 1920s also added to this change in policy.

Independence brought freedom for African countries but also the challenge of how to promote growth and development in their own countries. The experiences of industrialized countries showed that rapid development and sustained economic growth had involved a process of late industrialization in which the production structure shifted from the primary sector to manufacturing, alongside a progressive move from less to more technology and capital-intensive activities within and across sectors. The engine of this process of structural change and growth in productivity was rapid capital accumulation (Akyüz & Gore 2001: 266-267). The basic challenge of most post-colonial governments was, therefore, to promote agricultural growth and encourage structural transformation towards manufacturing (Akyüz & Gore 2001: 273). Investments in

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<sup>6</sup> In addition, some of the new inputs did not demand any investment at all. Allowing the African population to engage in certain activities (for example, growing cash groups like coffee or marketing livestock) that had previously been forbidden to protect the white settler economy stimulated economic performance. Missionaries, some of whom were responsible for the training of Africa's political leaders, played an important role and they also spread ideas and even crops (see Burgman 1990).

<sup>7</sup> Severe weather conditions, droughts in particular, added to these problems, affecting the local population and the white settlers alike. In spite of strong local government support, many of entrepreneurs went bankrupt.

Sub-Saharan Africa in this post-independence period were in three sectors: cash crops (coffee, tea, cocoa); mining (copper, oil, diamonds); and industry and manufacturing. Especially in the latter fields Africa lagged behind the rest of the world (see Mkandawire 1992: 87).

Based on the Harrod-Domar growth model, policies were aimed at promoting capital accumulation, which was considered the key to prosperity. This capital accumulation was to be achieved through increased (domestic and international) savings and incoming capital flows (international aid, external debt, Foreign Direct Investment and workers' remittances), which should be transformed then into productive investment.<sup>8</sup> Bilateral and multilateral donor organizations translated this simple and easily understood plan into Official Development Assistance (ODA), which was focused on physical investment (machinery, equipment and other intermediate imports) as well as big infrastructure projects (dams, roads, railways). The Cold War context largely determined where this development assistance came from and influenced government choices when it came to adopting a more socialist or more capitalist road to industrialization. In both cases, however, the state had a strong role in promoting growth and development.

In the late 1970s, it was clear that the optimistic prospects for development had not materialized in large parts of Africa. Trends in capital accumulation and exports heavily depended on economic activity in the agricultural sector for most African economies. A few, notably oil-exporting countries, were able to increase savings and earn foreign exchange through mineral exploitation but the economies of the majority were still predominantly agricultural. Policies designed to increase the contribution of agriculture to the rest of the economy had, however, to deal with the predominant pattern of agrarian production in most of Sub-Saharan Africa, which – apart from some large-scale capitalist farming in the former 'settler economies' – was and still is peasant agriculture.<sup>9</sup> Experiences in East Asia have shown that it is possible to promote industrialization on the basis of farm household production but, as Karshenas (2001) pointed out, certain initial structural conditions made the policy dilemma particularly difficult in Africa. For instance, agricultural production in Africa takes place in

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<sup>8</sup> The Harrod-Domar model was introduced in the 1950s and claimed that capital accumulation would lead to economic growth.

<sup>9</sup> Typically in peasant agriculture, work is organized around diverse household relations through a gender division of labour in which women do the major part of the work, access to land is organized through indigenous tenure systems, membership of the local community is the primary source of land-use rights, and farm households meet their consumption needs through self-provisioning, the production of export or food crops for sale or off-farm employment. Patterns vary between richer and poorer households.

risky and fragile natural environments, the agricultural economy is generally labour constrained, and basic food staples act as non-tradables in much of Africa. These constraints have several consequences. For example, food prices are highly variable because of the rain-fed nature of most agricultural production, the non-tradability of food crops prevents revenues from exports, and taking labour out of agriculture decreases agricultural output which, in turn, can frustrate the capital accumulation needed for structural transformation.

Not only questionable domestic policies but also worsening exogenous circumstances, such as falling commodity prices and high interest rates imposed on debt service payments, called for a radical change in policies in the late 1970s and early 1980s. Countries had no alternative other than adjusting but the debt crisis in the 1980s severely limited their room for manoeuvre, which made their growth and development policies increasingly dependent on the ideas and blueprints provided by those who could financially help them out: international financial institutions and multilateral and bilateral donors. Conditionality entered the arena of ODA and increasingly started to co-determine the development agenda of African governments.

The introduction of Structural Adjustment Programmes (SAPs) was the next landmark in development policies in Sub-Saharan Africa. Economic growth was still thought to be the key to overcoming poverty but where policies were first characterized by an embedded liberalism, with a Keynesian acceptance of state intervention in the rich economies and the corresponding (total or partial) developmental state notion of the modernization theory, there was a shift to a clearly non-embedded liberalism. Though the theoretical foundations of SAPs can be questioned (see Stein 2001, Meilink 2003), drastic neo-liberal stabilization and economic restructuring became the conditionality of structural adjustment lending to indebted developing countries, typically as a condition of debt rescheduling under rules dictated by Paris or London. The World Bank claims some successes (see Javarajah & Branson 1995) but its programmes have unquestionably failed to bring about wide-reaching changes. However, the programmes of the 1980s did not solve the huge debt problem, and by 1991 Sub-Saharan Africa's external debt exceeded its annual Gross National Product, by more than twice that of any other region (Iliffe 1995: 253). The repayment of loans to foreign creditors took precedence over the social costs of subsidy removal or the political risks of drastic economic disruption. The implementation of SAPs also led to the erosion of social services and reduced health and education expenditures (see Cornia *et al.* 1987, Mensah 2006). International ODA became the only (and no longer an additional) way of supporting poorly planned welfare programmes, as aid was designed to support general investments and current public expenditure.

The end of the Cold War in the late 1980s and early 1990s led to the emergence of a new development agenda for African national policies: the promotion of democracy and good governance. This meant better public-sector management and accountability, the dismantling of the neo-patrimonial structure, and the promotion of human rights and was swiftly followed by the Heavily Indebted Poor Countries Initiative (HIPC) that forced national governments to formulate so-called PRSPs (Poverty Reduction Strategy Papers) if they wanted to benefit from the HIPC. Some of these PRSPs are the sector plans in which governments have to present detailed plans of the sectors they want ODA and debt relief to be spent on. Social services, like education, water and health, were popular and some countries included sectors like agriculture, the environment, road infrastructure and decentralization. The Millennium Development Goals (MDGs) were instrumental in selecting these sectors.<sup>10</sup> PRSPs are supposed to be formulated by the recipient government after rounds of consultation with the general population to improve 'national ownership'. This does not mean that the new PRSPs replaced SAPs, in fact, the new PRSPs have not significantly altered the traditional structural adjustment conditions, which are still being implemented (Stein 2004, Zupi 2007).

Since the 9/11 attacks, the global war on terror has increasingly stressed international priorities. This has affected the development agenda of African countries through an increased international focus on post-conflict situations and so-called 'complex emergencies' (see Zupi 2007: 39) and has led to higher financial flows to fund emergency (containment) interventions rather than development. An ambiguous contamination of ODA actions with military conflict prevention, peacekeeping and peace-enforcement initiatives has occurred, with uncertain implications in terms of international law (for example, restoring state legitimacy through military intervention).

This overview suggests that ODA has played a significant role in financing and formulating policies in Sub-Saharan Africa. Anyemedu (2006) makes the case that Sub-Saharan Africa is the region of the world most subject to conditionality due to its relatively high ODA dependency and also to the direct influence of the donor community in assisting centralized African authorities. He claims that aid flows to developing countries increased from the 1960s and peaked in 1992. The level of ODA from the Development Assistant Committee (DAC) countries then followed a bumpy road and decreased in the 1995-2000 period until a revival culminated in the highest level ever recorded in 2005.

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<sup>10</sup> In September 2000, world leaders ushered in the new millennium by adopting the Millennium Declaration. Endorsed by 189 countries, it was then translated into a road map setting out eight major goals to be reached by 2015. The eight Millennium Development Goals (MDGs) build on agreements made at UN conferences in the 1990s.

However, that year was special due to extra pledges to debt relief. Monitoring its Millennium Development Goals in 2007, the World Bank bitterly admitted that:

Progress with scaling up aid to Africa has been disappointing. Five years after the Monterrey Conference and two years since the G-8 pledges at Gleneagles, country examples of programs to scale up aid to support the MDG agenda are lacking. Beyond debt relief (important to improving future growth opportunities), most countries in Sub-Saharan Africa are seeing stagnant or declining aid inflows. Excluding Nigeria (a recipient of exceptional debt relief) real bilateral ODA from DAC members to the region fell in 2005 and was unchanged in 2006.<sup>11</sup>

The reasons mentioned for the decline since the early 1990s are the end of the Cold War, budgetary problems in the developed world, a dwindling belief in the effectiveness of aid that has resulted in reduced willingness to provide ODA, and the 'trade not aid' propagandists that march alongside neo-liberals who promote the market as the way of solving Africa's problems.

In spite of this, Anyemedu (2006) acknowledges that an emphasis on aid is the only realistic source of significant finance to initiate a process of rapid growth for Africa. The other options – FDI, domestic savings, external debt and remittances – all play a role in the process of capital accumulation but the importance of each differs with time and location. In our view, although Sub-Saharan African countries should not put all their eggs in the one ODA basket, ODA dependency might work in certain sectors if it is guaranteed for long enough and comes with reasonable and workable conditions. In the end, however, donor countries will determine where, how, at what level and in which fields their taxpayers' money is allocated. Domestic savings and remittances are less risky in these aspects. A sound combination of financial resources is considered a more viable approach to lifting African economies. For example, remittances sent home from the African diaspora are becoming increasingly important and sometimes even overtaking ODA and FDI levels.<sup>12</sup> Although

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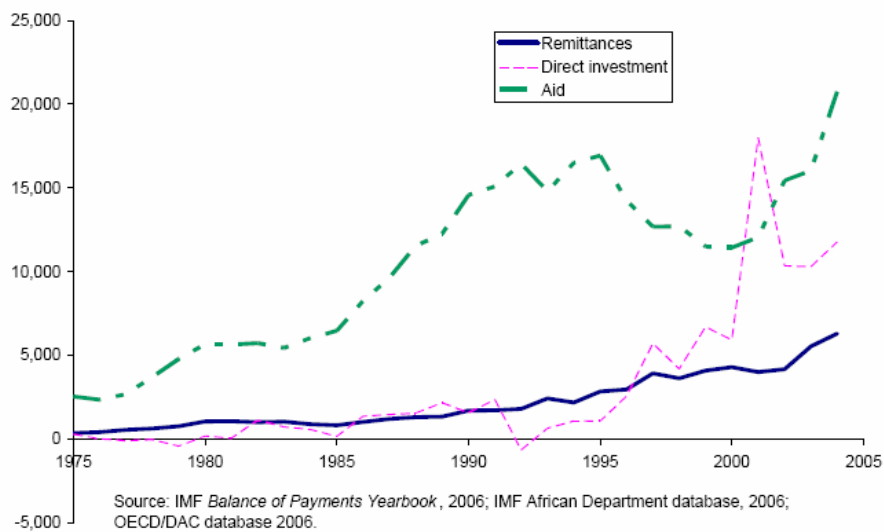
<sup>11</sup> It should be mentioned that ODA from non-traditional donors is on the rise. Non-DAC OECD donors are expected to double their assistance to over US\$2 billion by 2010; Saudi Arabia and other Middle Eastern countries provided nearly US\$2.5 billion in assistance in 2005; and other emerging donors, in particular China, are dramatically increasing their levels of aid and becoming significant foreign creditors. Much of this aid targets infrastructure and the productive sectors that DAC donors have moved out of (see World Bank 2007: 15).

<sup>12</sup> On average, remittances in SSA are about 2.5% of GDP, compared to almost 5% in other developing countries. Remittances were almost 28% of GDP in Lesotho, and more than 5% in Cape Verde, Guinea-Bissau and Senegal. In absolute terms, countries like Nigeria, Kenya, Senegal, South Africa and Uganda receive substantial amounts of money (as much as US\$2 billion). For some countries, remittances are also an important source of foreign exchange. Lesotho, Cape Verde, Uganda and the

these remittances are meant to support family members, some of the money is used in the productive sectors. African governments are playing a more active role in linking their countrymen in national development efforts (see, for example, de Haas 2008, Rutten & Muli 2008, Wabgou 2008). This growing willingness to invest directly in their country of origin challenges claims by some scholars that Africans themselves are not willing to spend money in their local economy (Ellis 2005).

FDI has grown in importance since the early 1990s (see Figure 1.1). Between 2004 and 2006, FDI into Africa even doubled to a record US\$36 billion, spurred on by the search for primary resources, mainly oil, gas and minerals, increased profits and a generally improved business climate

Figure 1.1 Inflows to Sub-Saharan African countries, 1975-2004 (millions of US dollars)



Source: Gupta *et al.* 2007

Comoros, for instance, saw remittances since 2000 amount to more than 25% of export earnings (Gupta *et al.* 2007).

(UNCTAD 2007).<sup>13</sup> The service sector, particularly transport, storage and communications, also continued to attract FDI but no significant manufacturing FDI occurred in Sub-Saharan Africa. Since 2000, many African countries have incorporated measures into their policy and regulatory frameworks to ensure steady inflows of FDI and increase flows that have the most impact on the development of their economies. Prospects for FDI into Africa continue to be positive because of high global commodity prices that continue to provide incentives for Transnational Companies (TNCs), particularly from Asia (and especially China), to take advantage of good returns on investment.<sup>14</sup>

*Are policies to blame?*

It can be concluded that the policy palette is now much more diverse than in colonial times. Today, besides ODA-related development efforts, national development policies, domestic investments, remittances and FDI are all playing their part, directly or indirectly, in triggering economic growth. Still, one cannot escape the impression that over the last 60 years the development agenda of African countries appears to have been increasingly influenced and set by the agendas of multilateral and bilateral donor organizations. Zupi (2007) claims, for example, that no specific instrument or purpose of ODA has been completely supplanted by new instruments and aims. Instead, a proliferation of objectives has emerged as a structural characteristic of ODA, with a lot of different instruments and approaches that have created problems of coherence because they represent different visions and are not simple instruments.

The different visions and African development policies have been based on the economic theories of growth and development in industrialized countries. Development policies have adopted subsequent developments in the neo-classical growth theory, focusing on the introduction of technical progress. Zupi (2007: 35) spells out the pattern: from being initially exogenous (Solow 1956, 1957), then linked to learning-by-doing (Arrow 1962) followed by the intro-

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<sup>13</sup> The search for new resource reserves has led to increased FDI inflows, after a two-year decline, to the tune of US\$8 billion to Africa's least-developed countries (LDCs). As a result, they have received 23% of FDI inflows to the region. The most significant increases took place in Burundi, Djibouti, Guinea-Bissau, Somalia, Madagascar, Ethiopia, Cape Verde, Gambia and Sudan, where FDI inflows for new oil exploration and mining activities, as well as those in the service sector, have increased. FDI inflows exceeded US\$1 billion in eight African countries and rose in 33 countries in 2006. In Sub-Saharan Africa, FDI inflows climbed in all sub-regions except Southern Africa due to large investments in oil and mining.

<sup>14</sup> Despite these absolute increases, the region's share of the global FDI declined to 2.7% in 2006 from 3.1% in 2005. Africa's share of global FDI remains low when compared to figures for South, East and South-East Asia (15% of the world's total) and Latin America and the Caribbean (6%).

duction of growing yield (Romer 1987) to investments in human capital (Lucas 1988) and the endogenous production of new technology (Romer 1990). Easterly (2001) describes economists' efforts to discover how developing countries in the tropics could become like the rich countries as an 'Elusive Quest'. Many of their recipes have been proposed and applied in practice to Africa, starting with foreign aid to fill the gap between 'necessary' investment and savings. For a long time it was thought that investment in machines was the key to growth. Supplementing this idea was the notion that education was a form of accumulating 'human machinery' (human capital) that would bring growth. Then, concerned about how 'excess' population might overwhelm the productive capacity of the economy, population control was promoted. It was subsequently realized that government policies hindered growth and official loans were promoted to induce countries to make policy reforms. Finally, when countries had trouble repaying their loans, they were encouraged to make further policy reforms, and debt forgiveness was offered in exchange for nationwide Poverty Reduction Strategies (PRSs). Currently we seem to be back where we started, with more aid to fill the gap, an idea recently re-introduced by another influential economist, Jeffery Sachs. His 2005 book *The End of Poverty – Economic Possibilities for Our Time* advocates doubling foreign aid to fill the gap between investment and savings to attain the UN Millennium Development Goals by 2015.<sup>15</sup>

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<sup>15</sup> Some have criticized the 'take off' reasoning that Sachs seems to promote. Tim Congdon (*The Spectator*, 7 May 2005) claims that Sachs's geographical and historical facts are wrong and that 'the problem here is governance, not geography. Has the man never seen *The African Queen* or read *Heart of Darkness*?' These references stress Congdon's opinion that Africa does have rivers like the Congo and the Niger that are navigatable. This is a rather simplistic translation of geographical factors. Econometrist Dani Rodrik also criticizes Sachs's interest in geography. Referring to a regression analysis crossing per capita income and three causal variables (institutions, market integration and geography) of some 80 countries, he concluded that it is neither the market nor geography that matter. It is the institutions that are important and this showed a positive causal relationship to income levels. The crucial question though is how this model-based analysis was executed and in which way geography was operationalized. Rodrik *et al.* (2004) used 'distance to the equator' as the best variable to measure the impact of geography. Exchanging this distance for access to the sea, malaria, mean temperature or days with frost was said not to affect the conclusion that geography at best would indirectly, i.e. through institutions, provide an explanatory contribution for the world's divergent income levels. Even more questionable is the claim that geography, as opposed to market integration and institutions, should be considered an exogenous factor, meaning that no return linkage is thought to exist when levels of wealth change. This is a very dubious claim. Geographers over the years have shown the importance and changes of relative distance



The dominance of (neo-classical and neo-institutional) economics in development thinking has led to a rather narrow view of development, which can also be traced in African development policies, and is frequently limited to the ‘Washington Consensus’, i.e., the IMF/World Bank-led policy often characterized as an unembedded neo-liberal, market-driven development trajectory linked to neo-classical growth theory. However, as Cowen & Shelton (1996) explained, development is both an intentional practice and an immanent process. Fire, iron tools, the domestication of animals, the steam engine, electrification and artificial fertilizers are all key development markers in the history of mankind. Technological inventions have speeded up with modern science and as the formal education of the wider population became common practice. Gillian Hart (2001) differentiates between ‘Big D’ Development, meaning post-WWII intervention in the Third World, and ‘little d’ development, referring to the development of capitalism as a geographically uneven, contradictory set of historical processes. In this chapter, we prefer to stay closer to the Cowen/-Shelton dichotomy and widen Hart’s definition of ‘little d’ development to include non-capitalist developments as well, or more precisely, the intrinsic drive of the ordinary citizen to improve their lives in an ever-changing context.

This introduction has referred to the mixed outcomes of development in Africa over the last sixty years. Poverty is still rampant in many parts of the continent but substantial improvements in some areas can also be observed. Is this all thanks to or in spite of the policies that have been implemented? Many explanations for Africa’s poverty have been suggested in the debate: its colonial heritage, the lack of savings, technology, (human) capital and well-functioning markets, bad governance, insufficient access to and integration in a globalizing world, adverse terms of trade, risk-averse livelihoods, ecological and climatic conditions, a lack of physical infrastructure, clientism and patronalism, wars and civic strife, and recently even ‘luck’ and ‘bad luck’ (see Easterly 2001).

Fieldhouse (1986: 235) proposed a dichotomy of possible explanations. First, a ‘non-policy’ interpretation that puts the blame for Africa’s failed development on factors beyond the control of African governments because of such issues as the ‘colonial inheritance’, the exigencies of the international capitalist economy and endogenous African obstacles like climate, geology and sociological conditions. Such interpretations can, for instance, be heard from John Iliffe who blames the sudden and rapid population growth in Sub-Saharan Africa for this different economic scenario because the need for capital to ‘provide millions of new children with food, housing, dispensaries, and primary

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in economic activities. Wealthy and technologically innovative countries are able to increasingly reduce the relative distance.

schools absorbed the surplus available for investment before there could be any thought of development' (Ilfiffe 1999: 253). Other causes mentioned by Ilfiffe include the oil crises of the 1970s that resulted in much higher costs of oil imports than on any other continent because of a lack of rail and water transport. Deteriorating terms of trade for many African export products (e.g. copper) added more problems from the late 1970s onwards. The second interpretation Fieldhouse distinguished is a policy approach concerned with the actions of African governments and although he does not provide a final answer on causation, he seems to favour the policy explanation, i.e. that African governments are to blame for their misfortune. John Loxley (1990) criticized this view because it 'forgets' about crucial international and non-policy factors like terms of trade and the role of foreign policy makers in Africa (see also Easterly 2006).

What differentiates between poverty and development in Africa is still hotly debated. In our view, more efforts are needed to answer this specific question. To be able to do so, in-depth regional and/or country studies will need to be undertaken because Africa's economies are, in spite of being primarily agriculturally oriented, still very diverse, as recently shown by Ndulu *et al.* (2008). And so are the specific peculiarities of their populations, climatic conditions, internal political systems and external trade relations. A broad palette of different causes will probably be presented (see, for instance, Ndulu *et al.* 2008, Collier 2007), as other scholars have done at a more general level for Africa as a whole. The key challenge is to weigh country-specific causes, if at all possible, to explain Africa's socio-economic performance. With the chapters in this book we hope to add to an in-depth understanding of the processes of impoverishment and development in Africa, and the intended and unintended effects of development policies on these processes. The final section of this introduction describes the background of the studies presented here and their main conclusions.

## Background to the book

Between 2002 and 2006 the Economy, Ecology & Exclusion (EEE) research group at the African Studies Centre (Leiden, the Netherlands) tried to contribute to a clearer perception of the complexities and unevenness of development processes in Africa by conducting research on questions of access to resources (factors of production, manufactured products, services) and to the institutions through which resources are allocated. As other research has shown, the opportunities available to rural and urban people to command resources are a major determinant of poverty or wealth rates. Fluctuating economic parameters, such as prices, markets and institutions as well as ecological conditions and their variability are determinants of people's welfare and income situation and play

an important role in whether they can command resources or not. However, Africa is obviously a far from homogeneous continent. Countries are affected differently by global economic transformations, and local economic conditions and policies differ as well. The group's research into these economic aspects was, therefore, continent wide and country specific.

Likewise, ecological conditions have a differential impact at a geographical level. Energy policies in the North resulting in an increase in greenhouse gases in the atmosphere are leading to global climatic changes and El Niño-like events are influencing rainfall patterns in large parts of Africa. Regionally and nationally, recurrent climatic irregularities such as droughts are having a huge negative impact on agricultural production. Small temporal and spatial variations in rainfall can have a substantial effect on production levels of local producers and the market prices of agricultural products. Population growth and the degradation of resources, both natural and manmade, will lead to more intense competition between population groups but also between wildlife and nature conservation, forestry and other uses of resources.

Sender & Smith (1986) state that continued commoditization and related changes in social relations of production constitute the central dynamic process in a wide range of African societies. These changes fuel structural processes of social and economic differentiation that cannot only be understood in terms of poor and rich. Many other studies have shown the heterogeneity of the poor and the rich by applying the (sustainable) livelihoods framework (for example, Bebbington 1999, Ellis 1998, Scoones 1998). In addition, people move in and out of poverty as a result of fluctuating economic and ecological conditions that change their position in the social relations of production and their access to and command of resources. The patron of today can become the casual agricultural worker of tomorrow and *vice versa*. Whether or not this happens depends, on the one hand, on the individual's vulnerability to poverty, which is determined by risk exposure and the available strategies and means to deal adequately with (the consequences of) risks and uncertainties, and, on the other hand, on their opportunities to invest in education, find employment or investment possibilities, have access to microfinance and/or be able to migrate.

In the EEE research programme, the concept of exclusion was used to understand the consequences of the poverty dynamics as described above. Exclusion can simply mean 'denied access' to, for example, resources, services and markets. Exclusion takes place at different politico-geographical levels and in different socio-economic spheres, and affects different social categories in different ways and to different degrees. The concept of exclusion is related to that of Sen's 'entitlement' (Sen 1981, 1987). Originally, entitlement referred only to the right of access to food but over time has been broadened to include other fields such as natural resources. The main difference with exclusion is that

entitlement refers to the *right* of access, while exclusion and, by definition, inclusion concerns access itself, i.e. the question of whether the entitlement can be effected into access to specific resources. The term 'resources' here refers to the five vital resources required to achieve a sustainable livelihood: natural capital, human capital, physical capital, financial capital and social capital. The degree of vulnerability of actors in relation to economic and ecological risks is largely dependent on access to these resources. This, in turn, is determined by the actor's position in social, economic and political hierarchies and networks.

The International Labour Organization (ILO) used the term 'social exclusion' to refer to a lack of social security, employment, safety and human rights, in short, to a sustainable livelihood. Exclusion in the EEE research programme had a much wider meaning in the sense that it is not only related to the lowest levels of analysis (individual, household) but to higher levels too, including the state and even (Sub-Saharan) Africa as a whole. At the continental level, private international investments largely bypass Africa (with the exception of a few countries such as South Africa, Nigeria and Angola). Depending on their export package, some countries have easier access to foreign markets than others, and some receive less foreign aid than others, depending on the criteria set by donors. Within states, some regions receive limited support from national resources and national laws with respect to land tenure, and resource management and environmental protection may work out to be differential and sometimes even discriminatory for certain categories of local producers. In general, there is a bias towards urban areas, which tend to receive a disproportionately large share of state resources.

Laws, rules and norms are instrumental in determining who is included in or excluded from the use of all kinds of resources. In Africa, local and statutory legal systems coexist and interact, creating confusion over the precise application of specific laws and rules. The administration of law is subject to the same logic of inclusion and exclusion, and people lacking resources have minimal or no access to legal mediation in cases of conflict. Moreover, in many countries the legal apparatus is far from being independent of politics, thus giving it an even more exclusive character. And some social categories are more excluded than others. Exclusion applies particularly to the poor who are confronted with being denied access to all the spheres described here. But unequal access occurs in other types of social categories as well. Some ethnic groups have readier access to natural and/or state resources than others, which can lead to serious conflict. Women and youth are groups that too often miss out in access to resources.

The research questions that guided much of the EEE research from 2002 until 2006 were: why do some actors have access to certain resources while others do not? Under what circumstances and conditions (economic, ecological,

political, legal, social and cultural) and by what mechanisms (decision-making processes) do some actors become excluded from certain resources (lost access) whereas others do not or may even become better off (acquired access)? And what does this mean for people's struggle for survival and their attempts to escape poverty? Research included the fields of coastal ecology, fisheries, urban agriculture, livestock keeping, plantation economics, labour markets, eco-tourism, maize marketing, social-security arrangements and food insecurity. The projects departed from disciplinary backgrounds and empirical work was conducted among different societies and communities in Sub-Saharan Africa in rural and urban areas and in agricultural and non-agricultural sectors.

Results from the research programme formed the major input for a conference organized by the research group entitled 'The End of Poverty in Africa?' that was held at the ASC from 6-7 March 2006. Both EEE researchers and invited scholars from outside the ASC attended the conference and were asked to critically consider poverty alleviation strategies on the basis of their own empirical research on (the relationship between) the economy, ecology and processes of exclusion and inclusion and/or make an assessment of the meaning of their research for current policy frameworks as laid out in the MDGs, PRSPs and the Sector Wide Approach (SWAp). This contributed to further insights into why the elixirs that have been provided in the last fifty years by policy makers have often resulted in increasing inequality in access to livelihood resources and why economic growth has failed to reach (different categories of) the poor. The conference papers have been brought together in this book and its contents form a representative sample of the results of the EEE's research programme and related research being undertaken by scholars elsewhere.

### Contributions to this book

On a continent where livelihoods are still largely based on agriculture and related activities, it is no surprise that many of this volume's contributions address the issue of access to land for the poor and how this is influenced by national policies and legislation (see contributions by van Dijk, Foeken, Leliveld, Rutten, Spierenburg, Steenkamp & Wels, and Woodhouse). At the same time, an increasing number of poor people in Africa have become fully or partly dependent on (casual) wage labour for survival (see contributions by Johnston & Sender, Leliveld, and Woodhouse). For this group among the poor, and primarily women, access to labour markets and the implementation of policies promoting employment opportunities have become far more relevant than access to land. For reproductive activities and in case of contingencies, access to (mostly unpaid) labour and the social networks through which this labour is provided are essential for poor people to survive, as is shown in the chapter by

Dekker. And for another group – often ignored in discussions on African livelihoods – access to fishing waters is more important for survival than access to land, as is discussed by Hoorweg, Wangila & Degen who considered the position of fishers on the Kenya Coast. Their well-being largely depends on multiple access to multiple resources and on a chain of successful conversions of resources. And Klaver & Nubé demonstrate how access to resources for the poor, or exclusion from them, is reflected in people's nutritional status.

The contributions are surprisingly similar in their comments on the policies discussed, be they policies on specific resources like land and labour, sector policies on the environment, education, health, tourism and agriculture, and national policies like Poverty Reduction Strategy Papers. Although many of the policies discussed claim to be pro-poor, the empirical evidence shows that it is mainly the less poor and richer people who benefit from them. One of the main conclusions is that the capacity to take advantage of opportunities that are created by development policies tends to be unevenly spread among households and individuals. Generally the less poor and richer people have a better capacity to grasp opportunities and this has led to a growing inequality between richer and poorer people. Although in poor economies terms like 'rich' and 'better off' are relative, policies seem to benefit richer people more than poorer people, notwithstanding the pro-poor rhetoric of those who develop and implement the policies. In some cases, as illustrated in the chapters by Foeken, Johnston & Sender, Spierenburg, Steenkamp & Wels, and Woodhouse, so-called pro-poor policies and legislation are actually preventing the poor from escaping poverty.

The reason why pro-poor policies do not or only partly benefit poor people has much to do with the assumptions in policy plans about who and where the poor are. The contributions in the book show that the heterogeneity among the poor at grassroots level is large but this is seldom reflected in pro-poor policies. Poor people are often conceptualized as a homogeneous group – the poor – with common characteristics and a position determined by conditions and developments that are unique to the group. It would appear from most of the analyses in this book that not only poorer and less-poor households and individuals have different trajectories of change but that several trajectories can be distinguished within these groups. Johnston & Sender conclude that the poor operate within markets and social structures and that their prospects should be analyzed within these specific contexts. Woodhouse found something similar and claims that any understanding of the distribution of poverty will need a characterization of the local socio-economic dynamics of the rural economy. For instance, in areas with a booming economy, poorer people will tend to be the losers amid increasing competition for access to land, water and other resources, and increasingly subject to 'adverse integration' as poor agricultural wage labourers (see Woodhouse and Leliveld). Policy makers have to decide how far pro-poor poli-

cies should take into account regional and local contexts and the specific groups of poor people. This may pose real dilemmas. And when a large percentage of a population are defined as poor, it still has to be remembered that the poor are likely to be a heterogeneous group. In such circumstances, it can be predicted that general measures presented in national or sector development plans will only benefit specific categories of the poor, and exclude others.

The heterogeneity among the poor is – as indicated above – the result of processes of agrarian change that lead to social and economic differentiation and processes of inclusion and exclusion. Many policy frameworks lack an adequate understanding of processes of agrarian change and the related changes in social relations of production. This has much to do with the theoretical and analytical perspectives that underlie policy frameworks and predominantly originate from neo-classical and neo-institutional economics. Woodhouse (this volume) critically analyzes the small-farm model or ‘agricultural development’ approach to rural poverty, which has been one of the strongest influences on policy since the 1950s and 1960s. Its is associated with a view of ‘rural’ society being relatively homogeneous, static and defined above all by being non-urban: a rural society of ‘small farmers’.

The alternative analytical frameworks that are applied in this book include the sustainable livelihood discourse (see contributions by Foeken, and Hoorweg, Wangila & Degen) and perspectives rooted in political economy (see Johnston & Sender, Leliveld, Rutten, and Woodhouse). The analysis of the sustainable livelihood approach is mostly at individual and household level, and its methodology is designed to capture and reveal the wide spectrum of livelihood trajectories that can be found among the poor. This occasionally also leads to myth busting, as in the contribution by Hoorweg, Wangila & Degen that shows that households engaged in fishing are not necessarily the poorest in society as is often assumed in other literature on fisher communities. While political economy in the past used to discuss general trends and use aggregates, the new political economy has incorporated context, diversity and locality into discussions to capture the complex dynamics of commoditization and how it affects the social relations of production and reproduction. Several contributions in this volume take this perspective to examine the role of state policies and economic processes in questions of access of the poor to resources in relation to the multiple, contested and overlapping practices and negotiations at local level.

As indicated earlier, researchers, and in particular economists, have considerable influence in shaping development policies through the analyses and analytical frameworks they provide. Easterly (2001) shows how one-dimensional these analyses can be, leading to policies that have no relation to the complex realities in the lives of poor people. The elixirs against poverty that policies provide mostly consist of one ingredient, while the complexities of the

lives of poor people demand policies that are more comprehensive and inclusive. If it is true that intervention logics behind policies are influenced and steered by the results of academic studies, the challenge for researchers is then to provide analytical frameworks and studies that reveal and unravel the heterogeneity of poverty and development processes. With this book, we hope to have contributed to this challenge. Taken seriously by policy makers, it could well be that pro-poor policies will become successful. The contextual analyses found in this book may help to provide better insights into the incentives and trajectories of specific groups of poor people and how these incentives are shaped by the social and economic contexts in which people live. In this sense, this book could contribute to a different perception of African realities and induce policy makers to make more realistic policy prescriptions that are increasingly responsive to incentives that could move people out of poverty. They need to start by assessing what is available and not by looking at what is lacking.

## References

- Akyüz, Y. & C. Gore 2001, 'African Economic Development in a Comparative Perspective', *Cambridge Journal of Economics*, 25: 265-288.
- Anyemedu, K. 2006, 'Financing Africa's Development: Can Aid Dependence Be Avoided', in: J.O. Adésinà, Y. Graham & A. Olukoshi (eds), *Africa and Development Challenges in the New Millennium; The NEPAD Debate*, London: Zed Books, pp. 256-275.
- Arrow, K.J. 1962, 'The Economic Implications of Learning by Doing', *Review of Economic Studies*, 29 (3): 155-173.
- Bebbington, A. 1999, 'Capitals and Capabilities: A framework for analyzing peasant viability, rural livelihoods and poverty', *World Development*, 27 (12): 2021-2044.
- Bernstein, H. 1990, 'Agricultural Modernisation and the Era of Structural Adjustment; Observations on Sub-Saharan Africa', *Journal of Peasant Studies*, 18 (1): 3-35.
- Burgman, H. 1990, *The Way the Catholic Church Started in Western Kenya*, Nairobi: Mission Book Service.
- Calderisi, R. 2006, *The Trouble with Africa; Why Foreign Aid Isn't Working*, New Haven and London: Yale University Press.
- Chabal, P. & J.P. Deloz 1999, *Africa Works: Disorder as Political Instrument*, Oxford: James Currey.
- Collier, P. 2007, *The Bottom Billion; Why the Poorest Countries Are Failing and What Can Be Done About It*, Oxford: Oxford University Press.
- Cornia, G.A., R. Jolly & F. Stewart 1987, *Adjustment with a Human Face*, Oxford: Clarendon Press.
- Cowen, M.P. & R.W. Shelton, R.W. 1996, *Doctrines of Development*, London: Routledge.
- de Haas, H. 2008, 'International Migration, National Development and the Role of Governments: The Case of Nigeria', in: A. Adepoju, T. van Naerssen & A. Zoomers (eds), *International Migration and National Development in sub-Saharan Africa*, Leiden: Brill, pp. 161-181.



- Easterly, W. 2001, *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics*, Massachusetts: First MIT Press.
- Easterly, W. 2006, *The White Man's Burden – Why the West's Efforts to Aid the Rest Have Done so Much Ill and So Little Good*, New York: The Penguin Press.
- Ellis, F. 1998, 'Household Strategies and Rural Livelihood Diversification', *Journal of Development Studies*, 35 (1): 1-38.
- Ellis, S. 2005, 'How to Rebuild Africa', *Foreign Affairs*, 84 (5): 135-148.
- Fieldhouse, D.K. 1986, *Black Africa 1945-1980 – Economic Decolonization & Arrested Development*, London: Allen & Unwin.
- Ghura, D. & M.T. Hadjimichael 1996, 'Growth in Sub-Sahara Africa', *IMF Staff Papers*, 43(3), p. 605ff.
- Gunning, J.W. & P. Collier 1999, 'Explaining African Economic Performance'. *Journal of Economic Literature*, 37: 64-111.
- Gupta, S, C. Patillo, & S. Wagh 2007, 'Impact of Remittances on Poverty and Financial Development in Sub-Saharan Africa', *IMF Working Papers*, No. 38, Washington DC: IMF.
- Hart, G. 2001, 'Development Critiques in the 1990s: Culs de sac and promising paths', *Progress in Human Geography*, 25 (4): 649-658.
- Iiffe, J. 1995, *Africans; the History of a Continent*, Cambridge: Cambridge University Press, African Studies Series 85.
- Javarajah, C. & W.H. Branson 1995, *Structural and Sectoral Adjustment: World Bank Experience, 1980-92*, Washington DC: World Bank.
- Kamarck, A.M. 1977, *The Economics of African Development*. New York: Praeger Publishers (Second reprint).
- Kamarck, A.M. 2000, 'Slow growth in Africa', *Journal of Economic Perspectives*, 14(2): 235-236.
- Kaplan, R. 1996, *The Ends of the Earth: A journey at the dawn of the 21st century*, New York: Random House.
- Karshenas, M. 2001, 'Agriculture and Economic Development in Sub-Saharan Africa and Asia', *Cambridge Journal of Economics*, 25: 315-342.
- Kilby, P. 2003, 'Foreword', in: E. Nnadozie (ed.), *African Economic Development*, Amsterdam: Academic Press, pp. xxxi-xxxiii.
- Leonard, D.K. & S. Straus 2003, *Africa's Stalled Development International Causes & Cures*, New York: Lynne Rienner Publishers.
- Loxley, J. 1990, Book review: Black Africa 1945-1980: Economic Decolonisation and Arrested Development by D.K. Fieldhouse, in: *Canadian Journal of African Studies / Revue Canadienne des Études Africaines*, 24 (1): 112-113.
- Lucas, R.E. 1988, 'On the Mechanics of Economic Development', *Journal of Monetary Economics*, 22 (1): 3-42.
- Meilink, H.A. 2003, *Structural Adjustment Programmes on the African Continent. The Theoretical Foundations of IMF/World Bank Reform Policies*, Leiden: African Studies Centre, ASC Working Paper no. 53.
- Mensah, J. (ed.) 2006, *Understanding Economic Reforms in Africa – A tale of seven nations*, New York: Palgrave Macmillan.
- Mkandawire, T. 1992, '30 Years of Independence in Africa: The Economic Experience', in: P. Anyang' Nyong'o, (ed.), *30 Years of Independence in Africa: The Lost Decades?*, Nairobi: Academy Science Publishers, pp. 86-103.

- Ndulu, B.J., S. O'Connell, R. Bates, P. Collier & C. Soludo (eds) 2008, *The Political Economy of Economic Growth in Africa: 1960-2000*, Cambridge: Cambridge University Press.
- Ndulu, B.J. & S.A. O'Connell. 1999, 'Governance and Growth in Sub-Saharan Africa', *Journal of Economic Perspectives*, 13: 41-66.
- Oliver, R. & A. Atmore 1977, *Africa since 1800*, Cambridge: Cambridge University Press.
- Rodrik, D., A. Subramanian, & F. Trebbi 2004, 'Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development', *Journal of Economic Growth*, 9 (2): 131-165.
- Romer, P.M. 1987, 'Growth Based on Increased Returns due to Socialization', *American Economic Review*, 77 (2): 56-62.
- Romer, P.M. 1990, 'Endogenous Technical Change', *Journal of Political Economy*, 98 (5.2): 71-102.
- Rutten, M. & K. Muli 2008, 'The Migration Debate in Kenya', in: A. Adepoju, T. van Naerssen & A. Zoomers (eds), *International Migration and National Development in Sub-Saharan Africa*, Leiden: Brill, pp. 182-203.
- Sachs, J. 2005, *The End of Poverty: Economic Possibilities for Our Time*, New York: The Penguin Press.
- Scoones, I. 1998, *Sustainable Rural Livelihoods; A Framework for Analysis*, Brighton: IDS, IDS Working Paper No. 72.
- Sen, A.K. 1981, *Poverty and Famines: An Essay on Entitlement and Deprivation*, Oxford: Oxford University Press.
- Sen, A.K. 1987, *On Ethics and Economics*, Oxford: Blackwells.
- Sender, J. 1999, 'Africa's Economic Performance: Limitations of the Current Consensus', *Journal of Economic Perspectives*, 13: 89-114.
- Sender, J. & S. Smith 1986, *The Development of Capitalism in Africa*, London/New York: Methuen.
- Solow, R.M. 1956, 'A Contribution to the Theory of Economic Growth', *Quarterly Journal of Economics*, 70: 65-94.
- Solow, R.M. 1957, 'Technical Change and Aggregate Production Function', *The Review of Economics and Statistics*, 39 (3): 312-320.
- Stein, H. 2001, 'Economic Development and the Anatomy of Crisis in Africa: From Colonialism through Structural Adjustment', *Occasional paper*, Centre of African Studies, University of Copenhagen.
- Stein, H. 2004, 'Fighting Poverty in Africa: Poverty Reduction Strategies, Employment and Accumulation', *Occasional paper*, Centre of African Studies, University of Copenhagen.
- UNCTAD 2007, *World Investment Report 2007*, Geneva: UNCTAD.
- Veit, P.G., T. Nagpal, & T. Fox 1998, 'Africa's Wealth, Woes, Worth', in: P.G. Veit (ed.), *Africa's Valuable Assets - A Reader in Natural Resource Management*, Washington, DC: World Resources Institute, pp. 1-26.
- Wabgou, M. 2008, 'Governance of Migration in Senegal: The Role of Government in Formulating Migration Policies', in: A. Adepoju, T. van Naerssen & A. Zoomers (eds), *International Migration and National Development in sub-Saharan Africa*, Leiden: Brill, pp. 141-160.
- World Bank 2006, *African Development Indicators*, Washington DC: World Bank.

- World Bank 2007, *Global Monitoring Report 2007 Millennium Development Goals: Confronting the Challenges of Gender Equality and Fragile States*, Washington DC: World Bank.
- Zupi, M. 2007, 'The Multi-D-Dimensions of Poverty: Some Conceptual and Policy Challenges', *Development*, 50 (2): 31-41.

## Natural resource management and poverty in Sub-Saharan Africa

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*This chapter examines the opportunities and limitations of poverty reduction in Africa based on strategies of natural resource use. It argues that the small-farmer model of rural society that dominates policy-making fails to take account of key local dynamics. In particular, African use of land, water and other natural resources needs to be understood from a perspective that recognizes the integration of many rural people within broader national and international labour markets and its effects in terms of migration and distribution of labour. While new markets are being created by urbanization and by technological change, the capacity to take advantage of such opportunities tends to be unevenly spread among households, so that aggregate increases in investment and income are often accompanied by growing inequality between rural households. The chapter concludes by considering the implications of these economic dynamics for current policies favouring the decentralization of the management of natural resources.*

### Introduction

This chapter aims to provide an overview of the relevance of agriculture, in particular, and natural resource management more generally, to strategies to reduce poverty in Africa. It focuses upon access to and the use of natural resources, particularly in rural areas where household expenditure 'poverty line' measures typically show a higher percentage of poor households than in urban areas. In doing so, however, it leaves open the possibility that the distinction between 'rural' and 'urban' livelihoods may be difficult to define in practice (Bernstein 1992a, Ashley & Maxwell 2001). Long-term 'chronic' poverty is more likely among people who are particularly vulnerable due to their 'life

stage' (e.g. children, older people), or who are discriminated against at national or local level because of caste, ethnicity, or refugee/migrant status, or who are disadvantaged through illness or disability (Hulme & Shepherd 2003). To these general categories we may add that, in the rural context, the poor are likely to be those lacking access to natural resources, of which land, livestock, fisheries, forest or pasture are commonly the most important.

The chapter draws principally on recent literature on natural resource management in Sub-Saharan Africa, a region in which it is estimated that 46% of people are living on less than US\$1 per day (Hulme & Shepherd 2003), although many of its themes have wider relevance to debates about how natural resource management can be harnessed to improve the well-being of the poor. As its starting point, the chapter uses the 'small-farmer' model of economy and society which has for many years underpinned development agencies' vision for poorer countries (Mellor 1976, Delgado *et al.* 1998, Ellis & Biggs 2001). It begins by summarizing this model as set out by one of its recent proponents (IFAD 2001) and then considers an alternative interpretation of rural poverty and its uneven distribution, and the implications it has for policy prescriptions such as agricultural intensification and diversification, the decentralization of natural resource governance and market engagement of small-scale farming.

### The small-farmer model

IFAD (2001) claims that 75% of the poor live in rural areas and that 60% are expected to do so even in twenty years' time. The review by Bird *et al.* (2001) also concludes that people living in rural areas are more likely to be poor than those living in urban areas. IFAD goes on to claim that 'six in ten of the world's extremely poor earn their living mainly from farming or farm labour' (IFAD 2001: 4). From this follows advocacy of a small-farmer model of poverty reduction in which smallholder production of food staples is expected to 'play a critical role in the livelihoods of the rural poor' (IFAD 2001: 4).

Within this model, the key to poverty reduction is perceived as increased productivity on 'small, private farms' through technological change, particularly improved seeds, fertilizer, and ways of ensuring more reliable moisture availability. While the model argues that technological change should be 'labour-intensive', it also asserts that productivity should increase faster than output prices fall, so that food producers and food consumers both gain. This, it is argued, will release labour for non-farm diversification to meet the growing consumption demands of smallholder households. Factors supporting this poverty-reducing transformation are identified as market liberalization, more control over assets (land, water, technology) and institutions by the poor (espe-

cially disadvantaged groups such as women), and decentralized and participatory methods (IFAD 2001: 4-6).

Four key premises of this model are:

- the problem of 'rural' poverty is primarily a problem of low farm productivity;
- increases in productivity of resource use by the poor are possible using scale-neutral technology in the form of improved seeds and water control;
- access to natural resources for the poor will be improved by decentralized and participatory methods and 'land reform to create small, not-too-unequal family farms' (IFAD 2001: 9); and
- the engagement of small farms in (global) markets will enable income growth as well as subsistence security for smallholders.

The small-farm model or 'agricultural development' approach to rural poverty has been one of the strongest influences on policy since the 1950s and 1960s (Ellis 2000: 21, Ellis & Biggs 2001) when it formed the core of colonial administration projects to create a stable class of 'yeoman farmers' as a stabilizing element in rural society in the face of deepening rural poverty and increasingly radical anti-colonial political movements in Africa. Kenya's Swynnerton Plan, South Africa's 'betterment' planning, and Rhodesia's Native Land Husbandry Act were all explicitly underpinned by a small-farmer model of development. This was no less the case, though more implicitly, for the large colonial investment programmes in agricultural infrastructure, such as the *Office du Niger* irrigation schemes, and in cash crop marketing, such as the *Compagnie Française pour le Développement des Textiles* in the French West African colonies. As exemplified by IFAD (2001), the small-farmer model continues to dominate ideas of rural poverty reduction half a century later, despite the means originally identified for its delivery – the agencies of the state – having been to some extent substituted in more recent formulations by market-based processes.

One important aspect of this model is its association with a view of rural society as relatively homogeneous – defined above all by its character of being 'non-urban' – and relatively static: a rural society of 'small farmers'. This is not to say that social differentiation and change are not acknowledged, but they are located within an overall view of 'small-farmer' society as a stable social and economic formation whose main processes of changing material wealth are dependent upon household labour, and thus are perceived in cyclical, demographic, Chayanovian (Chayanov 1986) terms: younger households having fewer assets becoming wealthier as children increase their workforce, and less wealthy again as children leave home to set up new households. Where small-farmer models of rural society, such as that advocated by IFAD (2001), do acknowledge differentiation between small farmers and farm labourers, the

potential conflict of interest within the relationship between employer and employee tends to be played down by an emphasis on processes that will benefit or disadvantage both groups. Thus, it is argued that change (e.g. through new technology) needs to benefit both farmers and labourers by prioritizing labour-intensive initiatives. Conversely, impoverishment affects both when the profitability of small-scale farming is undermined – a problem most frequently attributed to external causes: formerly to ‘urban bias’ in government policy (Lipton 1977) and more recently to globalization.

Where attempts are made within this perspective to discriminate between degrees of rural poverty, the ‘poorest’ or ‘resource-poor farmers’ are characterized in terms of the (less-favourable) agro-ecological conditions in which they must make a living, as in the case of the farmers in diverse, risk-prone environments prioritized by ‘Farmer First’ approaches to technology development (Chambers *et al.* 1989). These emphasize small-scale farmers’ capacities to adapt and innovate to overcome adverse natural resource conditions, such as drought and low soil fertility, as exemplified in the seminal study by Tiffen *et al.* (1994) that showed over a sixty-year period there had been large increases in production alongside environmental conservation in Machakos, Kenya, as a consequence of hillside terracing by farmers. However, the case of Machakos also illustrates two aspects that small-farmer approaches tend to neglect. The first of these is the linkage of the farm household to wider markets, particularly for labour: in their Machakos study, Tiffen *et al.* concluded that much of the investment for building terraces was financed by wage income from family members with jobs in Nairobi. Effectively, higher productivity was dependent on investment from non-farm income sources, and understanding the potential for improvement in farming incomes required an analysis that included flows of capital and labour between farm and non-farm components of the economy. The second aspect neglected in small-farmer models is illustrated not by Tiffen *et al.*’s aggregate analysis of changes in production but by Murton’s (1999) more detailed study of changes experienced by Machakos households with different levels of wealth. This showed a majority of households in Machakos unable to invest in cash crop production, and an increasing share of land being purchased by the wealthiest households while the share of land held by the poorest was in decline.

To address the wider market linkages of small-scale farming and their differential consequences for different types of farming households, we turn in the next two sections to an exploration of the dynamics of small-scale farming, and their variation in different economic scenarios.

## Dynamics of small-scale farming

The observation in Machakos of different trajectories of change for poorer and less-poor farming households underlines the importance of understanding heterogeneity and change in the analysis of poverty. An approach that gives greater prominence to these dimensions of agrarian systems is that of political economy (Bernstein 1992b: 27-32, Byres 1996), which argues that small-farmer or peasant forms of production are inherently unstable: the more successful farmers tend to accumulate control over resources (notably land) at the expense of the less successful, creating a class of property-owning farmers and a class of landless labourers. The pace and specific forms of such changes depend on the particularities of local markets (e.g. those for agricultural products, for technology and for labour) and do not preclude the possibility of new forms of small-scale production coming into being, as changing markets create new opportunities (for example in peri-urban horticulture as a result of urbanization). However, one general implication of this view is that the very poor and less poor cohabit the same communities, and, as labourers on the one hand and employers of labour on the other, have livelihoods that are not only interconnected but in certain respects (wage rates) in conflict.

Where labour wage rates are low (due to a lack of alternative work opportunities), it is entirely possible that large numbers of the poor will be living in the more agriculturally productive areas, and their relationship with better-off neighbours will be influenced by changing markets and technology. This is a common observation in the 'green revolution' areas of South Asia (Pearse 1980, Ravnborg 1992: 55-56) but also in Africa, as illustrated by Murton's (1999) study in Kenya, and Peters's (2006) longitudinal study of rural incomes in southern Malawi in which the difference between richest and poorest income quartiles grew threefold in 1986 to eleven-fold in 1997, as poorer households resorted increasingly to temporary wage work on neighbours' farms:

The better-off households who, on average, have more land, bigger maize harvest, more agricultural and non-agricultural income, disproportionately hired neighbours as well as temporary labourers coming from other areas. A primary use of the large surplus maize stores held by the better-off households was to hire workers in the peak agricultural season. The vicious cycle for the poor is tightly bound to the virtuous cycle of accumulation by the better-off. (Peters 2006: 327)

If it is the case that small-scale farmers have, over time, an inherent tendency to split into employers and sellers of labour, then it is important to identify factors that will influence this process. Three that we can identify immediately are: the availability of markets; the existence of productivity-raising technology; and the availability of land to expand the scale of production. We will consider each briefly in turn.



The existence of a market for agricultural output is a basic requirement for any farm-based development, and it is the absence of strong agricultural markets that has prompted some authors to conclude that large numbers of rural people will continue to leave farming, resulting in a ‘deagrarianization’ in many parts of rural Africa (Bryceson 1999). However, this is clearly not the case everywhere, and the Kenyan and Malawi cases cited above both provide examples of changing markets providing opportunities for increased production. In the case of Machakos, the initial impetus to increase output, from opening the coffee market to small-scale African producers, was followed by an increased demand for fruit and vegetables from the Nairobi urban market. In the case of southern Malawi, the opportunity to increase agricultural income came from the opening of burley tobacco markets in 1990 (previously reserved for estate production) to small-scale producers.

It is essential to note that in both of these cases access to non-farm income was a critical element in allowing small-scale farmers to invest in more productive technology – terracing hillside fields in Machakos, tobacco nurseries and curing sheds in Malawi – as well as providing the working capital to meet increased input costs of seed, fertilizer and labour. The association of higher farm productivity with higher non-farm income has been observed more generally in southern and eastern Africa (Berry 1993, Ellis & Freeman 2005, Bahiigwa *et al.* 2005). We consider further the effects of such investments on productivity below. Here, it is important to emphasize that a close linkage between farm productivity and non-farm (including urban) income implies a connection between failure of farm productivity growth and the broader dynamics of African economies, many of which have for decades experienced political and economic instability and an underlying ‘failure of industrialization’ (Lawrence 1986: 7), with negative effects for non-farm labour markets. The role of non-farm income in agricultural investment also underlines the insignificance of credit from financial agencies in raising small-farm productivity in Africa, a view supported by Mortimore’s (2003) observation that 81% of the substantial investment underlying increased agricultural production in six West African countries had been made by direct purchases by small-scale farmers without recourse to credit. This implies that returns on non-farm work – and the effect on these of mobility and the education of household members – are likely to be a critical factor differentiating rural households’ ability raise farm productivity.

The third factor identified above, availability of land for agricultural expansion, is dependent upon the density of occupation of land but (as discussed in the next section), where agricultural market opportunities are favourable it is likely that land will be scarce and access to more land for some will come at the expense of reduced land access for others. Berry (1993) argued that in Sub-Saharan Africa the negotiation between those controlling land and those supply-

ing labour is influenced by a tendency for markets for land to be more ambiguous than markets for labour: 'access to rural land remains contested and negotiable. Contests are fought with money and influence, in the name of customary rules and prerogatives' (Berry 1993: 132). Berry argues that in the prevailing economic context of generally low returns on labour, many people try to diversify their income sources, often investing in a multiplicity of social networks in order to do so, but with diminishing returns: 'The result is a high degree of mobility of people and resources but little tendency for institutions to coalesce into stable frameworks for collective action, resource management, or the consolidation of capital and knowledge' (ibid. 1993: 196). This analysis, suggesting an indeterminacy of outcome, a 'negotiability' of access to land that offers sufficient scope for the disadvantaged to avoid deepening poverty, has been questioned, notably by Peters (2004), and I will return to discuss this later in the chapter. First, however, it is necessary to consider how the dynamics of small-scale farming may differ, producing uneven patterns of agricultural growth and rural poverty.

### Temporal and spatial variation in rural poverty

While neglecting socio-economic differentiation within the same area, the small-farmer model tends to emphasize differentiation between farmers (and other resource users) in different areas, with poverty attributed to the lower potential of 'diverse, risk-prone environments' (Chambers 1989). This emphasis on the natural resource base has implications for how we understand relationships between poverty and environmental degradation. These are dominated by neo-Malthusian explanations of poverty in terms of population growth outstripping the available land resource, and counter-arguments of those, such as Tiffen *et al.* (1994), who support Boserup's (1965) argument that population pressure is a stimulus for technological innovation to achieve greater productivity from a given amount of land. Despite the narrative power of these simple population-resource models, more detailed empirical study has suggested a more nuanced understanding of historical change and geographical difference. Most obvious is the observation that population growth is much more rapid in some areas than in others, and in some cases the population is in decline (Raynaut 1997a), together with a related observation that differences in population growth rates (and resulting differences in population density) are – in Africa at least – often the result of population migration.

A second observation in much recent research on natural resource use and rural poverty is recognition of the importance of a historical perspective to an understanding of current patterns of resource use. Not only has this led to a re-evaluation of whether rural poverty is the result of environmental degradation

(Leach & Mearns 1996, Fairhead & Leach 1996) but it has shown that existing patterns of landscape and settlement are the result of many interacting factors. Raynaut (1997a), for example, traces the existing population density and distribution in West Africa back not only to the zones of economic activity (mining, cash crop production, infrastructure development) established under colonial administration but also to areas of stable administration (and population concentration) or insecurity (and consequent depopulation) under pre-colonial states. Such studies have also identified situations where the ecology of disease vectors creates a threshold of minimum human population density below which the challenge of diseases such as onchocerciasis (Raynaut 1997a) and trypanosomiasis (Kjekshus 1977, Richards 1985) makes continued settlement unsustainable. In this way, disruption or insecurity of economic activity can translate into permanent abandonment of otherwise productive agricultural lands. Conversely, a priority for refuge in times of insecurity may prompt communities to settle and farm otherwise inhospitable areas, as in the case of the 200-year settlement of the Bandiagara plateau by the Dogon people in pre-colonial Mali (Gallais 1975, Woodhouse *et al.* 2000a). In such cases, existing settlement patterns may be seen as contingent on discrete historical events rather than a product of a linear trajectory of development.

From the perspective of mapping the role of natural resource endowments in rural poverty, two important conclusions can be identified. Firstly, social and economic dynamics providing security or market opportunities may be as, or more, important than ecological characteristics in determining the population density of an area. The path-dependence of development patterns cautions against trying to 'read off' the quality of natural resources (and hence their role in the determination of poverty) from their remoteness or economic marginality. As Wiggins & Proctor (2001) point out, agricultural activities in peri-urban areas are not primarily influenced by the underlying quality of soil or climatic conditions but by the strength of (urban) demand. One can add that, since urban areas originate from a variety of historical circumstances (mineral extraction, trade, military, administrative), there is no more reason to associate urban centres with favourable agro-ecology than there is to associate remote areas with unfavourable natural resource conditions. Indeed, Scoones & Toulmin (1999: 51) argue that, in absence of access to markets for agricultural goods and/or labour, farming areas with otherwise favourable rainfall and soil conditions would provide only low levels of income, vulnerability to food deficit, and the exposure of soils to increasing exhaustion. The extent of attenuation of demand (through the geographical-friction effects of poor transport etc) in remote areas can therefore be argued to be of more importance than the underlying natural resource base in remote areas. This is certainly the conclusion to which Raynaut's (1997a, 1997b) work in the Sahel would lead. It is further rein-

forced by the observation that today's remote rural areas can become tomorrow's centres of highly productive agriculture. The development of irrigated horticulture in Maasailand (Southgate & Hulme 2000) is a case of an agriculturally marginal area being transformed in response to changing market opportunities.

A second important conclusion is that uneven development is often characterized by the migration of people into areas of economic growth and away from areas of decline or stagnation. In economically growing rural areas, immigration will be an important element of population growth, increasing competition for resources such as land, water, pasture etc. In areas of economic decline, emigration by the more able-bodied leaves those left behind – typically mothers with young children, the old and the infirm – with reduced capacity to maintain productivity on the land, as a lack of labour restricts the timeliness of planting and weeding, or the ability to bring fallow land back into cultivation. It should be evident that this constraint would be further exacerbated by the HIV/AIDS epidemic. Very poor people may therefore be living in both growing and declining rural economies, although the mechanisms creating their poverty may be quite different. In economically stagnant or declining areas, lack of access to markets and the emigration of farm labour in search of better income translate into low investment in land productivity – what Rigg (2006) in the context of South and South East Asia, terms 'old poverty'. In areas of economic growth, poorer people will tend to be the losers in the increasing competition for access to land, water and other resources, and increasingly subject to 'adverse integration' as poorly-paid agricultural wage labourers – what Rigg terms 'new poverty'. Moreover, it should not be assumed that absolute levels of deprivation will always be worse in the 'old poverty' of remote areas than in more economically dynamic sites of 'new poverty'. For example, Marzetti (2001), comparing more and less remote villages in Morumbala District, Mozambique, found lower household incomes but also lower levels of child malnutrition in more remote villages than in villages with better market (road) access. This she attributed to greater social fragmentation under economic boom conditions, which resulted not only from competing demands on parents' time but also less willingness on the part of neighbours to provide snacks for young children.

Thus far, the idea of decline and stagnation of the rural economy has been equated with lack of access to agricultural markets, typically due to poor transport links to urban markets. However, many remote areas are actively exploited: as conservation areas or for significant extractive activity (forestry, hydropower, etc.), with associated infrastructure. Here, the key question for poverty analysis is the terms under which the poor gain access to natural resources, whether as direct users or indirectly as employees of agencies of extraction or conservation.

The primary consideration, then, may not be 'remoteness' in terms of time to reach urban markets (geographical friction), but the extent to which the rural economy can be considered to be growing or stagnating as a source of employment.

Thus, while geographical mapping of poverty can usefully inform the analysis and design of policy, it may not be possible to do this using the purely spatially-defined criteria of 'remoteness' or 'natural resource potential'. Understanding the distribution of poverty will need some characterization of the local socio-economic dynamics of the rural economy. The following sections review the implications for poverty of critical aspects of these dynamics, the intensification and diversification of resource use, the governance of access to resources, and the changing nature of agricultural markets.

### Using natural resources: intensification and diversification

#### *Agriculture and pastoralism*

Many maintain that the impoverishment of rural areas in Africa is due to declining land productivity under an increasing population using low-input farming methods (IFAD 1994: 10, World Bank 1996: 22-25, WRI 1998: 3-4). However, a number of authors (Young & Wright 1980, Stocking 1996, Scoones & Toulmin 1999) argue that routine assertions by development agencies, such as 'over 45% of Africa is affected by desertification' (UNEP 2006), are inadequate to address the diversity of land management contexts encountered in practice. Moreover, the technical assessment of what constitutes 'soil degradation' in African farming contexts remains highly contentious (cf. Koning & Smaling 2005).

However, it is not necessary to argue that agricultural productivity is declining, merely that it is not increasing, in order to identify a plausible cause for crisis. The long-term decline in the terms of trade between agricultural output and manufactured goods is sufficient to explain this. Raynaut (1997b) observes that in the Sahel an individual's annual tax obligation in the 1940s could be paid with the sale of 20 kg of millet, but in the 1970s required the sale of 90 kg. Under such circumstances, migration of young men to seek wages in urban areas, in mining industries or in rural areas with higher-value agricultural output (cocoa, coffee, sugar, tea plantations) was economically rational as early as the 1950s (Haswell 1963) and continues to generate large human flows, such as that from Burkina Faso to Ivory Coast, from Southern and Central Africa to South Africa, and from West Africa to Europe.

The discussion in the previous section suggests that the effects of this emigration are double-edged. On the one hand, the loss of the most productive labour is a constraint on households' capacity to maintain or improve farm

productivity. On the other hand, where absence is brief or seasonal, or where migrants generate significant remittances, migration can offset the loss of household labour by providing cash to invest in agriculture. The aim of such investments may be simply to secure household subsistence, as in the case of oxen, ploughs and carts purchased by migrant mineworkers returning from South Africa to 'labour reserve' areas in Lesotho and Mozambique since the early twentieth century (First 1983, Murray 1992), irrigation pumps purchased by Senegalese migrants in France in the 1970s (Adams 1981, Diemer & van der Laan 1987) or hybrid maize seed and fertilizer purchased by Swazi migrants in the 1980s (Low 1986). However, such investments usually also allow the prospect of increasing marketed output.

It is important to note that, just as the majority of farm investments are made without recourse to credit, so adoption of new technology is largely independent of government technical services, which have for the most part been severely curtailed since structural adjustment reductions in government budgets in the 1980s. In Sub-Saharan Africa, two key investments appear to have made economic sense to farmers in recent years: investments in soil and water conservation (SWC) and the purchase of livestock. In fact, the term SWC is a misnomer – 'water augmentation' is probably more accurate – since investments in terraces, stone bunds, wetland cultivation and so on are invariably made with a view to increasing returns from farming through production of higher-value crops, such as vegetables, rather than soil conservation *per se* (Boyd & Slaymaker 2000), and hence – again – the likelihood of such investments being worthwhile is critically dependent on access to the rapidly expanding urban markets. The relatively limited extent of 'wetland' areas (valley bottoms, stream banks, etc) that provide the possibility of year-round farming in the many parts of Africa with a long dry season has made these a particular focus of intensification of cultivation (Bell *et al.* 1987, Woodhouse *et al.* 2000b, Touré & Seck 2005, Peters & Kambewa 2007) – and consequently of competition for land.

In certain circumstances, small-scale water control technology for irrigation or rainfall storage may be an appropriate option for poorer social groups in areas – typically peri-urban – with good market access, since quite high returns on labour can be achieved on very small plots of land. Such schemes have proved popular for women's groups in densely populated areas of South African ex-bantustans (Woodhouse 1997). However, poorer people are unlikely as individuals to have access to land, together with capital and labour, to invest in the necessary well, pump or drainage ditches, and it is likely that some form of organizational framework is needed (see below).

Investment in SWC removes a major constraint to crop productivity – inadequate water availability – and conventional vegetable production may often be extended to include crops such as sweet potato, cassava and green maize that

can double as staple foods as well as high-value vegetables in urban markets. In areas with difficult market access, options for intensification are much more restricted, not least because these are likely to be areas of labour shortage and most methods of maintaining soil productivity are labour-intensive. Moreover, under semi-arid conditions there have been few technologies that have proved worthwhile as long as rainfall uncertainty was a constraint. While this remains open to technological advance – for example recent research (Doumbia *et al.* 2005) claims significant improvements in rain-fed millet and sorghum yields in Mali by applying tiny doses of fertilizer mixed with seed – investments in irrigation or in improving water retention by the soil are unlikely to be remunerated by the production of cereals alone. Where such investments are made by the state, or otherwise appear free of cost to farmers, returns on cereal production, especially rice, can make it worthwhile for farmers to make other investments (e.g. fertilizer, hired labour) to increase productivity. The principle investment in such contexts is in animal draught for ploughing, and possibly weeding, with the effect of improving labour productivity and expanding the area under cultivation. Successful farmers may diversify further with the acquisition of more livestock (see below). The poorest members of communities in areas dependent on rain-fed cereal production (e.g. in Zimbabwe and Botswana) are frequently defined by their lack of draught animals (Clayton & Woodhouse 2000).

A key group at risk of impoverishment by expansion and intensification of agriculture in Africa are pastoralists. Livestock production is possible where rainfall is insufficient to support reliable crop production, and in much of arid and semi-arid Africa transhumant livestock production or pastoralism has historically been the predominant form of natural resource use. In semi-arid West and East Africa, historically dominant pastoralist groups have lost ground politically, economically and socially to cultivators since the colonial administration. There are two principal reasons for this.

Firstly, pastoralists' territorial scope for transhumance has been reduced by colonial and post-independence states' appropriation of land for other uses, such as game or wildlife reserves (e.g. the Maasai in Kenya and Tanzania), or for agricultural development schemes (e.g. Toucouleur in the Senegal River Valley, Fulani in the *Office du Niger*, the Afars in the Awash Valley). These reductions in the scope for transhumance were in part justified by a perception that pastoralist production methods were inefficient and environmentally destructive and a belief that this could be improved by settling pastoralists on ranches managed under scientific principles. This perception is now being seriously questioned (Sandford 1983, Behnke *et al.* 1993, Scoones 1994) and there is a growing awareness that, under conditions of extreme rainfall fluctuation that prevail in semi-arid Africa, pastoralist impacts on vegetation are much less destructive than earlier thought and that transhumant grazing management – in which

grazing herds migrate, tracking forage availability – is more efficient than ‘scientific’ attempts to identify a fixed ‘carrying capacity’ for rangelands.

A second reason pastoralists have suffered in relation to cultivators is that access to key resources, such as dry-season grazing, have been curtailed by changes in crop production systems. The most marked of these is the development of wetlands, river valleys and other water resources in order to intensify agriculture (Southgate & Hulme 2000, Woodhouse *et al.* 2000). A related development is the accumulation of livestock by farmers, which undermines the reciprocal logic of farmers allowing pastoralists’ herds to graze crop stubble in order to benefit from the fertilizer effect of the manure (Ramisch 1999). The mobility that is essential to the pastoralists’ production system means that their occupation of an area is transient and, as a consequence, claims over resources are often seen as weaker than more sedentary communities (Hammel 2001). Despite international advocacy of strengthening of pastoralists’ rights over land, it seems clear that pastoralists’ access to land is increasingly under challenge from expansion and intensification of crop production, and that particular effort will be needed if their position is not to be made worse by land tenure reform processes currently underway in many parts of Africa.

Pressure towards sedentarization is accentuated for those pastoralists who lose their stock to drought or disease, who may have few other options other than to join the stream of poor seeking livelihoods in urban areas; or to become landless labourers – often employed as herders of other people’s livestock. Zaal & Dietz (1999) suggest this latter may be a route to accumulating cash to purchase livestock in order to return to pastoralism, although Southgate & Hulme (2000: 110) regard this as ‘somewhat optimistic’. In some instances, government policy has further polarized livestock ownership. For example, the *mafisa* custom in Botswana ensured that owners of large herds would loan draught animals to poorer households to enable them to re-enter the cattle economy. The breakdown of this customary practice (Clayton & Woodhouse 2000) accompanied the Botswana government’s policy of providing ploughing subsidies. Owners of larger herds, now ploughing with tractors, prefer to claim the subsidy for ploughing their poorer neighbours’ fields instead of lending them draught animals. This has meant that households that have lost cattle through disease or drought can continue farming only with assistance from the state or by hiring cattle from neighbours.

#### *Poverty and the use of the ‘commons’*

Resources often identified as ‘commons’ include forests, pastures, fisheries and wildlife. They are characterized by resources from which it is costly to exclude other users, but whose use by individuals is subtractable from the resource available to others. Where such resources generate sufficient value to individual



users they may be subject to efforts to privatize their use by excluding other users, as in forest plantations for pulp industries, wildlife reserved for tourist enterprises, fisheries concessions and fencing of rangelands. As public or common property under, respectively, state or customary tenure, commons are often argued to be resources to which the poor have relatively unrestricted access, thus presenting a diverse range of livelihood possibilities. For example, forests can supply medicines, mats, baskets, furniture, timber, fuel, fruit, mushrooms and bushmeat, among other products. They are argued to be 'part of a larger body of rural non-farm activities that act as a sponge absorbing those unable to obtain employment on their own farms or as labourers' (Arnold & Townson 1998: 3). Shackleton *et al.* (2000) argue that the importance of such resources as a 'safety net' for the rural poor is often underestimated because their use and exchange is non-monetized and therefore unvalued.

In this respect, it is important to distinguish the significance of use of a resource between, on the one hand its contribution to users' livelihoods, and on the other hand the volume or value of the resource used. According to Arnold & Townson (1998), the contribution of forest use to livelihoods is highest for the poorest users but the heaviest use of forest is by wealthier users. Shackleton *et al.*'s (2000) data from South Africa illustrate the huge disparity in benefits obtained from communal grazing by richer and poorer households: the net annual value of livestock products and services was US\$765 for cattle-owning households and US\$25 for households without cattle. This is consistent with Arnold & Townson's (1998) conclusion that market opportunities for forest products are most easily exploited by better-off users who can invest labour and capital to overcome entry costs. Consequently, the better-off resource users will exploit resources for which there are growing (i.e. urban) markets (e.g. bushmeat, furniture-making, charcoal) and therefore high returns on labour and capital invested, the very poor will concentrate on activities whose entry costs are lower but are more likely to suffer market saturation and low returns.

This conclusion raises important questions about diversification as a livelihood strategy in rural areas. In particular, if the paths of off-farm diversification open to the very poor are limited to those producing low returns, this seems unlikely to offer a significant improvement in their well-being. If returns on the use of such resources by the poor are to improve, it would appear that either they must be provided with capital to overcome the entry costs of more remunerative activities, as argued by Start (2001), or their access to the resources should be privileged over their wealthier neighbours. With regard to the latter, Inamdar *et al.* (1999) have suggested protecting poorer people's access to income from bushmeat by allocating individualized use rights, in the form of individual transferable quotas (ITQs), coupled with the promotion of local institutions (user groups) to police illegal hunting.

*Poverty, scale, risk*

In view of the often precarious livelihoods of poorer arable farmers in much of Sub-Saharan Africa, it is worth asking whether such systems were less risky in the past. A first answer is to point to the constraints that colonial administration imposed upon access to more productive land, either through direct expropriation for European settlers (in Southern and Eastern Africa), or through exclusion from areas such as forests, stream banks, and wetlands, on the grounds of environmental protection. A related development that increased vulnerability was the switch to more drought-susceptible food-staple crops: from sorghum to maize in Southern Africa and the substitution of millet and sorghum by rice in parts of the Sahel.

A third, and possibly more widely relevant, answer is that farming is today undertaken by much smaller units than in the past. The system of cultivation by extended family or lineage groups described by Haswell (1963), Hill (1972) and Toulmin (1992) involves trade-offs: subordination to the labour demands of the group's senior men (though this does not preclude cultivation of fields of one's own, rather the priority they can be given) in exchange for the support of the group in times of hardship. Opportunities for higher cash income, from cash crops or wage income are widely acknowledged to have led to an earlier departure of young men from the workforce of these family food cultivation systems to set up their own nuclear households, and consequently to a decrease in the size of the farming unit. In this sense, increasing market orientation of agriculture during the past century may have contributed to increasing vulnerability among farming households.

Brock & Coulibaly's (1999) study in Mali shows the farming units considered the most sustainable were large complex extended households, frequently with over fifty – and in one case up to 95 – members, distributed between their original farms of cotton, cereals and fruit orchards in southern Mali and two or more coffee or cocoa plantations in Ivory Coast. While management of such units presents huge challenges and many undergo periodic divisions, at their most successful they provide examples of social organization that offer both social security and scope for individual enterprise and mobility. This hypothesis is supported by the observation that mobilization of labour through extended kinship networks in Burkina Faso is an important factor in the success of pineapple plantations developed by Burkinabé migrants in Ivory Coast (Colin *et al.* 2007), and by Dercon *et al.*'s (2007) suggestion that barriers to belonging to networks for mutual support are an important component of the vulnerability of poorer households.

These considerations suggest further limitations to the 'small private farm' as a model for reducing the vulnerability of the poor. It seems likely that a return to large patriarchal kinship production units is in many places neither

feasible nor desirable. However, larger scale economic and/or social units, typically involving some form of co-operation or mutual support, may afford better protection to the more vulnerable in high-risk environments. Examples exist of savings clubs linked to small-scale agricultural production, such as *stockfels* among women in South Africa (Woodhouse 1997) or Maasai women saving to buy land (Southgate & Hulme 2000) or *mwethia* terrace construction groups in Kenya (cf. Berry 1993: 133). However, these generally combine an investment in group activity to secure resources (land and water) for individualized but similar activity for group members. For many of the most vulnerable, such as elderly or disabled people, individuals' work capacity is likely to be quite varied and a collective production unit will need to offer correspondingly varied types of work opportunity to its members. Moreover, Dercon *et al.* (2007) argue, the capacity of a network to reduce vulnerability to general shocks, such as drought, is increased by the heterogeneity of livelihoods among its members.

We noted earlier the importance of off-farm income as a source of investment in farming and Ellis (2000) suggests that reliance on non-farm income is 30-50% in Sub-Saharan Africa, rising to more than 80% in Southern Africa. However, there is a strong divergence between diversification into high-return activities achieved by those with higher levels of human (especially education), or financial, assets, and diversification into low entry-cost but low-return activities which is most commonly the pattern for the poor. A further key observation is that, while diversification at the level of an *individual's* activity is likely to provide advantages of flexibility in a context of risk, at the level of *household* the advantages of flexibility (for the household as a whole) are further increased by the possibility of specialization, and hence higher returns on labour, for individual household members (Ellis 1999). This potential for collective diversification coupled to specialization by group members is enhanced as the size of the group or household increases.

Rather than a quest for 'scale-neutral' technology to overcome low agricultural productivity, the above analysis of dynamics of small-scale farming has emphasized the role of agricultural and other markets in stimulating intensification and diversification of natural resource use. Success depends on a capacity to invest that frequently draws upon non-farm (and non-rural) income. Migration is often a central feature of these dynamics but its effects may depend on migrants' capacity to create or maintain larger-scale networks to mobilize labour and other resources, and to manage risk. In the remainder of the chapter I consider the question of changing governance of natural resources and the changing nature of agricultural markets.

### Access to natural resources: governance and property

To manage and conserve natural-resource systems effectively and sustainably, it is essential that local stakeholders participate. Decentralization to local communities has shown that local users have a comparative advantage over government agents in managing resources; they can design more efficient rules and more easily monitor and enforce them. (IFAD 2001: 26)

The problem of current modes of (...) devolution, decentralization and participation is that rural 'big men' tend to run local institutions in their own interests. (IFAD 2001: 27)

These two quotes from the same source demonstrate the deeply contradictory character of current policy on the governance of natural resources, particularly in Africa. The emphasis on decentralization of natural resource management was founded on the perception that state agencies were both ineffective in managing resources such as forests, and also unaccountable to the local constituency of users of those resources. This perception was reinforced by arguments attributing the degradation of natural resources in Africa to the disruption of local regulatory institutions by colonial government, markets, or 'centralizing' African states (Moorhead 1989, Scoones 1994, 1996, IIED 1999: 29). Decentralization would therefore allow management to be more responsive to local users' priorities, and make use of their local knowledge in designing and ensuring compliance with management regimes. Thus, 'community-based' natural resource management held out the prospect of achieving both environmental conservation and greater security of access to natural resources for the poor (CCD 1995).

In practice, government decentralization has tended to focus on establishing local assemblies with responsibility for service (education, health) delivery and with limited revenue-raising powers. Control of resources such as land, water, forests and pasture was often dealt with under separate legislation. One consequence was to leave unresolved the relationship between elected local assemblies and customary authorities whose control over land had been integral to colonial administration (cf. Chanock 1991), and who continued as *de facto* arbiters of land rights in many parts of rural Africa. This remains unfinished business in much of Africa (Mamdani 1996) where many recent land tenure reform proposals maintain a central role for customary chiefs in land allocation decisions (Amanor 2005, Claassens 2005, Kinsey 2005, Peters & Kambewa 2007).

Advocates of strengthening customary land rights argue, firstly, and as outlined above, that more local management produces more effective and accountable resource use. This argument was reinforced by evidence of the long-term sustainable management of resources held as common property (e.g. fisheries,

pastures) by self-governing institutions (Ostrom 1990). Key features of successful self-governing institutions were held to be the use of indigenous technical knowledge (i.e. knowledge that did not depend on external expertise) in managing the resource, a level of social relationships (social capital) among members of the community of resource users that enabled consensus on management rules and ensured compliance, and legal recognition (i.e. by the state) of the rights of the community to exclude non-members from the resource. The idea that self-governing institutions were appropriate to manage common property resources, such as forests and pastures, which were also identified as safety-net resources for the poor, gave further impetus to the idea that community-based management was a means of improving the security of the poor. This type of thinking imbued customary land rights with a rural welfare function that was consistent with the rhetoric in many African countries that customary rights were inalienable – ‘not for sale’. At the end of the twentieth century land policy was marked by a dichotomy between ‘non-market’, or ‘inalienable’ customary rights on the one hand and formally registered ‘statutory’ land titles the other (IIED 1999, Toulmin & Quan 2000, Platteau 2000). For many concerned with protecting access to land for the poor, advocacy of reinforcing customary rights was propelled not only by their linkage, outlined above, with the benefits of self-governing institutions, but also by the disbenefits identified with converting customary rights to formal land titles, which include:

- Titling programmes favour ‘the well-connected and their lawyers’ (de Soto 2000: 167), who are best placed to deal with the bureaucratic procedures involved;
- Formal titles generally involve registration of primary (i.e. cultivation) rights and ignore secondary or seasonal rights (e.g. to grazing) that are often safety-net rights under customary tenure (Platteau 2000), and thus make access to land likely to become more exclusive.
- Land titling has often not allowed registration in a woman’s name;
- One justification for title registration – that it allows land to be used as collateral for loans to finance improvements in productivity – is not supported by empirical evidence, which shows little influence of type of land tenure on farm productivity (Migot-Adholla *et al.* 1993), and little use of credit for agricultural investment.
- Conversely, the development of a land market opens up the possibility of distress sales by the poor in times of hardship, thus accelerating social differentiation and landlessness among the poor.

There is empirical evidence that in areas with low and/or declining population, where competition between individuals for land is low, registration of customary jurisdiction may be adequate to secure community rights in the face

of competition from commercial interests such as logging or mining companies. Hughes (2001) details such a case in a remote area of Mozambique. However, where demand for land is growing, there is evidence that customary tenure may offer little protection for the poor. For example, the implementation of programmes to formalize village jurisdictions to improve resource management, such as the *Gestion de Terroir* in the Sahel, quickly showed that customary authority of the village resided in the headship of lineages of cultivators who regarded the rights of pastoralists or immigrant farmers as entirely subordinate to their own, so that community-based management excluded participation by such stakeholders in decision-making (Woodhouse *et al.* 2000a, Gray & Kevane 2001). More generally, customary rights have multiple facets of inequality: between men and women; between older and younger men; between autochthon families with claims to first clearing of the land and later settlers and immigrants; and between herders and cultivators. Under increasing competition for land, these inequalities can result in the exclusion of those with weaker claims.

The playing out of such competition is, moreover, influenced by the capacity of individuals to strengthen their particular claims to land through investment. At its simplest, investment in clearing land by cutting and burning vegetation forms the basis of all customary authority – usually held by (or transferred from) the descendants of the first settlers who cleared the land. Pastoralists, who clear no land, have more tenuous authority over grazing areas, no matter how ancient their management of them. However, investment in boreholes by Tswana cattle owners in Botswana in the 1930s provided the basis for more exclusive rights not only to the water but also to the pastures around them (Peters 1994). Similarly, planting trees or investments in SWC, such as irrigation infrastructure, stone bunds and terracing – even manuring to maintain the period of continuous cultivation (Gray & Kevane 2001) – are associated with an increasing degree of exclusive control – privatization of land. Indeed, in many African contexts privatization of land needs to be seen as a consequence (not a prerequisite, as proponents of land titling programmes argue) of investment to improve productivity. Since it is the wealthy that are able to invest, it is they who will strengthen their rights to land, while poorer farmers will be more vulnerable to losing land rights due to their inability either to establish visible investments or to maintain continuous production (and therefore occupation). The resulting differentiation between those consolidating their land holdings and those losing them appears similar whether land is held under customary tenure in Burkina Faso (Gray & Kevane 2001) or under formal registered title in Kenya (Murton 1999).

A further feature of increasing competition for land in many parts of Africa is the increasing monetization of land transactions under customary tenure in what resembles a land market. This is particularly visible in areas of greatest

competition for land: in peri-urban areas (Kasanga & Kotey 2001, Benjaminsen & Sjaastad 2002, Rakodi & Leduka 2004, Daley 2005a, 2005b), and in wet lands (valley bottoms, stream banks, swamp margins) which offer important advantages for agricultural intensification in predominantly dry landscapes (Scoones 1991, Woodhouse *et al.* 2000, Woodhouse 2003, Peters & Kambewa 2007). In some instances, cash payments or sharecropping characterize land transactions between kin (Amanor & Diderutuah 2001). These dynamics of commoditization of land under customary tenure have led some to query the non-market nature attributed to customary tenure (Lund 2000, Woodhouse 2003) and to recall evidence of emerging land markets in accounts of African agricultural development in the late nineteenth and early twentieth centuries (cf. Hill 1963, Bundy 1979, Berry 1993) and arguments that these land markets were suppressed by colonial authorities whose need to strengthen administrative control over the rural population converged with the interest of local chiefs in increasing their land allocation authority (Bates 1984, Chanock 1991, Cowen & Shenton 1991). Current economic dynamics of land commoditization in Africa are, however, profoundly influenced by the prevailing politics of land, in which land rights are linked to ethnic identity and citizenship (Kuba & Lentz 2006, Walker 2005), and sales of customary land rights are often illegal. The interaction between these economic and political dynamics means that land transactions in Africa often constitute an informal or vernacular market outside the legal framework of formal property rights recognized by the state (Chimhowu & Woodhouse 2006). In the absence of statutory recognition, land purchasers attempt to protect their claim to land, both by recording transactions as written and witnessed documents and also by disguising them as traditional transactions, such as loans (Matthieu *et al.* 2002). In some instances, the purchase of land turns out to be the first of an indefinite series of payments to the landholder as part of a patron-client relationship (Chauveau 2006). Land sales and rent agreements with outsiders may also be a means by which holders of customary rights seek to privatize their control of land and deflect competing claims from kin (Francis 1984, Woodhouse *et al.* 2000a). However, the legitimacy of such sales or rental transactions with outsiders may be contested – typically by younger men of the land-holding lineage claiming that senior members of their indigenous or autochthonous land-holding families are depriving their younger kin of their customary right to land. In West Africa this has resulted in hostility and violence towards migrants by those defining themselves as members of the indigenous ethnic group. Conflicts of this type have resulted in the expulsion from Ivory Coast of thousands of immigrants since 2000, although many were families settled in the country for two or more generations (Colin *et al.* 2007). Elsewhere, Berry (1993: 157) observed that community members with less purchasing power can seek to invoke customary rights to expropriate or demand

rent from wealthier immigrants, and Gray & Kevane (2001: 583), in Burkina Faso, state: 'poorer and land-short farmers (particularly the young) use political discourses (infused with the language of ethnicity) to halt incipient processes of intensification and "privatisation"'. Similar tensions between the economic dynamics of a land market and the politics of ethnically-identified rights to land are evident in Mali (Woodhouse *et al.* 2000a), Kenya (Southgate & Hulme 2000) and Malawi (Peters & Kambewa 2007).

These accounts are not encouraging for strategies of poverty reduction through the recognition of customary rights at the level of the *community*. They imply that where competition for land is high the incipient privatization of land will tend to reduce access to land for the poor, irrespective of the formal tenure regime in place. In these circumstances, any attempt at registering customary rights will only secure access for the poor if this allows the registration of *individuals'* existing use of land and other resources. Opposition to the 2004 Communal Land Rights Act in South Africa has focused on the prominent role the new legislation allows tribal authorities in land allocation and the lack of guarantees of protection of existing land users' rights (Claassens 2001, 2005). Such issues of transparency and accountability are not necessarily addressed by proposals for local institutions to arbitrate and register land claims modelled on the Land Boards in Botswana (Quan 2000), which combine customary authority and locally elected officials. At the very least, such institutions would need to include representatives of those with only subordinate rights under customary tenure, such as women, immigrants and pastoralists and other users of common property. Secondly, the impact of land boards will, in practice, depend on the political context within which they will operate, and the policies which they are required to implement (Quan 2000: 205). Ribot (2002) has argued that decentralization will not have been properly tested as an approach to natural resource management unless it includes devolution of discretionary powers to democratic local institutions – conditions he considers have yet to be met. However it is perhaps necessary to also recognize that the conditions for democratic governance in rural areas of Africa depend critically on the political climate promoted at national level. Crook & Sverrisson (2001) have argued that a concern for improving the plight of the poor is more likely to be found at national than local level, so that decentralization is not, of itself, likely to result in poverty alleviation. This is exemplified empirically by a study (Francis & James 2003) on the reform of local revenue collection by district councils in Uganda, which underlined how central policy intended to increase local accountability can become translated locally into its opposite: in this case an increased and more arbitrary taxation burden on the poor. The discussion in this section suggests that the continued, and in some cases increasing, association of rural land rights with ethnic identity, coupled with a growth of vernacular land markets fuelled by



increasing competition for land is contributing to an increasing vulnerability of the poor to losing access to land, as well as an increased risk of conflict along ethnic lines.

In this context, decentralization appears to offer little to the poor unless accompanied by political leadership from the (central) government in setting out policy – and social goals – for land rights, on matters such as the rights of women; the admissibility of ethnic discrimination in land rights; and the relative weight to be given to indigenous holders of customary land rights compared to immigrant land users, sharecroppers or tenants. An element of policy will need to recognize the increasing prevalence of land markets: recent research in Benin (Edja 2001) showed 75% of women in the villages studied were farming rented land, and for 40% of them rented land was their entire cultivated area. In southern Ghana, Amanor & Diderutuah (2001) reported that two thirds of farmers obtained access to land through sharecropping and for nearly half of all farmers the ‘share’ to the landholder had increased (from a third to a half) under conditions of increasing land scarcity. In Tanzania’s southern highlands, Daley (2005b) found that 54% of land transfers were either rental (31%) or sales (23%). Rather than denial of the existence of such markets, which often characterizes existing policy, the poor may be better served by government efforts to regulate such transactions through, for example, the local, formal registration of sales and monitoring the fairness and consistency of rental agreements.

### Changing market conditions

African farming has been profoundly shaped by engagement with (global) markets since the colonial period, with implications for the economics of farming in general and the significance, in particular, of economies of scale which disadvantage small-scale farms competing in global markets. In recent decades, falling international prices of agricultural commodities have had severe consequences for small-scale farmers producing crops for export (Ashley & Maxwell 2001: 404). Moreover, current international trade negotiations offer little prospect of improvement of opportunities for African agriculture (Jensen & Gibbon 2007). Increasing incomes from agricultural exports appear to depend on obtaining access to a higher-priced market segment, such as organic production methods (e.g. for groundnuts) or a ‘fair trade’ marketing channel (e.g. for cocoa or coffee), or both. While fair trade may stabilize agricultural prices for export crops, it remains to be seen whether it can significantly alter the long-term decline in agricultural commodity prices. Moreover, producing for a relatively higher-priced market niche means farmers must meet additional quality standards. This is also the case for most of the recently established commodity

chains for non-traditional exports from low-income countries, such as cut flowers and fresh vegetables.

It is therefore unsurprising that the most dynamic element in African farming is in the production of high-value fresh fruit and vegetables for consumers in Africa's expanding urban areas, for which international competition is likely to be less strong. More generally, however, most food consumed in Africa is produced in Africa, and even Sub-Saharan Africa's imports of bulk cereals, for which international prices are most competitive with local production, have been estimated to amount to only 19% of consumption (Weatherspoon & Reardon 2003). Even where export markets are important, the local market may be larger, as Neven & Reardon (2004) illustrate in the case of Kenyan fresh fruit and vegetables, for which they estimate the shares of output consumed by the home market at 90% by volume and 70% by value.

The increasing urbanization of African food markets has been accompanied by changes in marketing structure. The liberalization of foreign investment regimes and the ending of apartheid in South Africa in 1994 have been followed by a major expansion of South African, and to a smaller extent Kenyan, supermarket chains into neighbouring Southern and East African markets. Weatherspoon & Reardon (2003) estimated the two largest South African chains as each operating about 80 supermarkets in other African countries. Supermarket share of the retail food market varies from 50-60% in South Africa to around 20% in Kenya and 5% in Nigeria. However, there are indications that the importance of supermarkets is set to grow not only for urban food consumers but also for rural food producers. Firstly, South African supermarkets have expanded the scope of their market from the relatively well-off and now also target low-income urban consumers. Secondly, supermarket chains' investments include sophisticated storage and transport infrastructure that is increasingly integrating regional agricultural and food markets within Africa. As a consequence, from an initial position of obtaining most of their agricultural products from South Africa's commercial farms, supermarkets are seeking to diversify their agricultural suppliers to include producers in other African countries. In the case of Tanzania, government regulation requires at least 40% of supermarket food retail be sourced in Tanzania (Weatherspoon & Reardon 2003). The consequences for African farming are likely to be profound in terms of the investments in technology (including irrigation) required to meet quality standards (frequently approximate export standards). The questions of scale and risk identified earlier will be similarly intensified, and, if poorer farming households are to benefit from the expanding urban market, it seems likely that membership of a supportive larger organization, such as a cooperative or 'outgrower' scheme will be essential (Coulter *et al.* 1999).

## Conclusions

In this chapter I have cautioned against a ‘homogenizing’ view of rural society to which small-farmer models of rural poverty reduction are prone, and which emphasize the limitations of soils, climate or other natural resource endowments as the reason for rural poverty. Four key elements of the small-farmer model identified at the start of the paper were:

- the problem of rural poverty is primarily a problem of low farm productivity;
- increases in productivity of resource use by the poor are possible using scale-neutral technology in the form of improved seeds and water control;
- access to natural resources for the poor will be improved by ‘decentralized and participatory’ methods and land reform to create small, not-too-unequal family farms; and
- the engagement of small farms in (global) markets will enable income growth as well as subsistence security for the smallholders.

I have sketched an alternative model of African rural society that is characterized by a high degree of mobility for its most able-bodied and productive people, who consequently move into, or out of, agricultural production according to the returns from agriculture relative to other employment. Opportunities for income from agriculture are determined primarily by the strength of markets for agricultural products, and investment of capital and labour in farming is highly responsive to market signals. An individual’s ability to make such investments frequently depends on their access to non-farm income and/or social networks. This means that the ability to take opportunities to increase productivity is not equally shared and, at the extreme, the least able will tend to lose their control of land to the better-off.

From this perspective, the link between poverty and farm productivity needs to be understood through an analysis of the dynamics of agrarian change, in which a historical perspective and an appreciation of population mobility are key elements. In areas with access to strong and expanding (typically urban) food markets, competition for land, fuelled by immigration, and investment in technology (notably that related to water management) drives the emergence of a market for land in which the poor are increasingly liable to sell their land to meet emergency needs. Under these conditions, poverty is not primarily the result of low farm productivity but, most immediately, the result of some sections of the rural population becoming dependent on poorly paid work as agricultural labourers. While investment does bring productivity increases, as predicted by the small-farmer model, the lack of scale-neutrality of investment in technology – in the sense that the poor are least able to afford such investments – is a key factor driving the growing differentiation between landless and landholders. In many such areas, the opportunity for land reform to create small,

not-too-unequal family farms appears to have long gone. High levels of historical and current migration in many parts of Africa, coupled with an interpretation of customary land rights in ever-narrower ethnic terms, are restricting legitimate land rights to a minority of indigenous or autochthonous lineage leaders who are able to translate control of land into cash income via vernacular land markets. As a consequence, landless farmers' access to land will come primarily through rental and share-cropping arrangements, though possibly with an increasing share accruing to the landlord. Under such circumstances, land policy may need to consider how to ensure marginalized groups can negotiate protection of secondary rights; to monitor the benefits to the poor of rental and share-cropping arrangements and to seek improved access for poorer groups to high-return non-farm (though possibly natural resource-based) employment opportunities.

In areas with weak market access, the population is likely to be static or declining due to emigration, and productivity is restricted by low rates of farm investment and by a scarcity of farm labour. While it is possible that investment in technology might raise farm productivity in such areas, such technology should be labour-saving, not labour-intensive as the small-farmer model advocates. The viability of any investment in farming will be limited in the absence of market demand. High levels of vulnerability of the residual population of such areas may signify that the small family farm is not the most appropriate scale on which production (and risk) should be managed. Larger units, with a more diverse range of activities, might be expected to manage uncertainty and risk better. Such approaches may be linked to agriculture or they could be focused on non-farm diversification. Either way, they need to seek ways of generating opportunities for the poorest groups to take part in higher-return natural resource use rather than safety-net activities that provide only low returns on labour.

Finally, I have argued that assumptions in the small-farmer model about the poverty-reducing effects of decentralization and the engagement of small farmers with global markets are very different from economic and political dynamics that empirical study reveals do little to help the poor. The evidence I have reviewed suggests that in many parts of Africa both the governance of natural resource access and the way market demand for food is structured are changing rapidly and in ways and with social consequences that appear not to be reflected in policy discussions. It is in this respect that the small-farmer model needs to be replaced by one that explicitly addresses the trajectories of social change in Africa.

## References

- Abudulai, S. 1996, 'Perceptions of Land Rights, Rural-Urban Land Use Dynamics and Policy Development', in: *Managing Land Tenure and Resource Access in West Africa. Proceedings of a Regional Workshop in Gorée, Senegal*, London: International Institute for Environment and Development.
- Adams, A. 1981, 'The Senegal River Valley', in: J. Heyer *et al.* (eds), *Rural Development in Tropical Africa*, London: Macmillan.
- Amanor, K. 2005, 'Night Harvesters, Forest Hoods and Saboteurs: Struggles over Land Expropriation in Ghana', in: S. Moyo & P. Yeros (eds), *Reclaiming the Land. The resurgence of rural movements in Africa, Asia and Latin America*, London: Zed Books.
- Amanor, K. & M. Diderutuah 2001, *Share Contracts in the Oil Palm and Citrus Belt of Ghana. Land Tenure and Resource Access in West Africa*, London: GRET / International Institute for Environment and Development.
- Arnold, M. & I. Townson 1998, *Potential of Forest Product Activities to Contribute to Rural Incomes in Africa*, London: Overseas Development Institute, Natural Resource Perspectives No 37.
- Ashley, C. & S. Maxwell 2001, 'Rethinking Rural Development', *Development Policy Review* 19 (4) 395-425.
- Bahiigwa, G., D. Rigby & P. Woodhouse 2005, 'Right Target, Wrong Mechanism? Agricultural modernization and poverty reduction in Uganda', *World Development*, 33 (3): 481-496.
- Bates, R. 1984, 'Some Conventional Orthodoxies in the Study of Agrarian Change'. *World Politics* 36 (2): 234-254.
- Behnke, R., I. Scoones & C. Kervan 1993, *Range Ecology at Disequilibrium*, London: Overseas Development Institute.
- Bell, M., R. Faulkner, P. Hotchkiss, R. Lambert, N. Roberts & A. Windram 1987, *The Use of Dambos in Rural Development with Reference to Zimbabwe*, Loughborough: Loughborough University / University of Zimbabwe.
- Benjaminsen, T. & E. Sjaastad 2002, 'Race for the Prize: Land Transactions and Rent Appropriation in the Malian Cotton Zone', *European Journal of Development Research*, 14 (2): 129-152.
- Bernstein, H. 1992a, 'Introduction', in: H. Bernstein & H. Johnson (eds), *Rural Livelihoods: Crises and responses*, Oxford: Oxford University Press.
- Bernstein, H. 1992b, 'Agrarian Structures and Change: Latin America', in H. Bernstein & H. Johnson (eds), *Rural Livelihoods: Crises and responses*, Oxford: Oxford University Press.
- Berry, S. 1993, *No Condition is Permanent: The social dynamics of agrarian change in Sub-Saharan Africa*, Madison: University of Wisconsin Press.
- Bird, K, D. Hulme, K. Moore & A. Shepherd 2002, *Chronic Poverty and Remote Rural Areas*, Manchester: Chronic Poverty Research Centre, CPRC Working Paper No. 13.
- Boserup, E. 1965, *The Conditions of Agricultural Growth. The economics of agrarian change under population pressure*, London: Allen and Unwin (reprinted by Earthscan, 1993).

- Boyd, C. & T. Slaymaker 2000, *Re-examining the 'More People Less Erosion' Hypothesis: Special case or wider trend*, London: Overseas Development Institute, Natural Resource Perspectives No 63.
- Brock, K. & N. Coulibaly 1999, *Sustainable Rural Livelihoods in Mali*, Brighton: Institute of Development Studies, Research Report 35.
- Bryceson, D. 1999, 'African rural Labour, income diversification and livelihood approaches: A long-term development perspective', *Review of African Political Economy* 80: 171-89
- Bundy, C. 1979, *The Rise and Fall of the South African Peasantry*, London: Heinemann.
- Byres, T. 1996, *Capitalism from Above and Capitalism from below*, London: MacMillan.
- CCD 1995, *United Nations Convention to Combat Desertification. Text with annexes*, Geneva: Information Unit for Conventions, UN Environment Programme.
- Chambers, R., A. Pacey & L. Thrupp 1989, *Farmer First. Farmer innovation and agricultural research*, London: IT Publications.
- Claasens, A. 2001, "*It is not easy to challenge a chief*": *Lessons from Rakgwadi*, Cape Town: Programme for Land and Agrarian Studies, University of Western Cape, Research Report No. 9.
- Claasens, A. 2005, *The Communal Land Rights Act and Women. Does the Act remedy or entrench discrimination and the distortion of the customary?*, Cape Town: Programme for Land and Agrarian Studies, University of Western Cape, Land Reform and Agrarian Change in Southern Africa Occasional Paper No 28.
- Chanock, M. 1991, 'Paradigms, policies and property: A review of the customary law of land tenure', in: K. Mann & R. Roberts (eds), *Law in Colonial Africa*, London: Heinemann and James Currey.
- Chauveau, J-P. 2006, 'How does an institution evolve? Land, politics, and intergenerational relations and the institution of the *tutorat* among autochthons and immigrants', in: R. Kuba & C. Lentz (eds), *Land Rights and the Politics of Belonging in West Africa*, Leiden: Brill, 213-40.
- Chayanov, A. 1986, *The Theory of Peasant Economy*, Madison: University of Wisconsin Press.
- Chimhowu, A. & P. Woodhouse 2006, 'Customary vs. private property rights? Dynamics and trajectories of vernacular land markets in sub-Saharan Africa', *Journal of Agrarian Change* 6 (3): 346-71.
- Clayton, A. & P. Woodhouse 2000, 'Modernizing Communal Lands', in: P. Woodhouse, H. Bernstein & D. Hulme (eds), *African Enclosures? The Social dynamics of wetlands in drylands*, Oxford: James Currey.
- Colin, J-P., G. Kouamé & D. Soro 2007, 'Outside the autochthon-migrant configuration. Access to land, land conflicts and inter-ethnic relationships in Lower Côte d'Ivoire', *Journal of Modern African Studies* 45 (1): 33-59.
- Coulter J., A. Goodland, A. Tallontire & R. Stringfellow 1999, *Marrying farmer cooperation and contract farming for service provision in a liberalising sub-Saharan Africa*, London: Overseas Development Institute, Natural Resource Perspectives No 48.
- Cowen, M. & R. Shenton 1991, 'The Origin and Course of Fabian Colonialism in Africa', *Journal of Historical Sociology* 4 (2): 143-174.

- Crook, R. & A. Sverrisson 2001, *Decentralization and Poverty Alleviation in Developing Countries: A comparative analysis, or, is West Bengal unique?*, Brighton: Institute of Development Studies, IDS Working Paper 130.
- Daley, E. 2005a, 'Land and Social Change in a Tanzanian Village 1: Kinyanambo, 1920s-1990', *Journal of Agrarian Change* 5 (3): 363-404.
- Daley, E. 2005b, 'Land and Social Change in a Tanzanian Village 2: Kinyanambo in the 1990s', *Journal of Agrarian Change* 5 (4): 526-572.
- Delgado, C., J. Hopkins & V. Kelly 1998, *Agricultural Growth Linkages in sub-Saharan Africa*, Washington D.C.: International Food Policy Research Institute, Research Report 107.
- Dercon, S., J. Hoddinott, P. Krishnan & T. Woldehanna 2007, 'Collective Action and Vulnerability: Burial societies in rural Ethiopia', *Global Poverty Research Group Working Paper Series*, No. 76. <http://www.gprg.org>
- de Soto, H. 2000, *The mystery of capital: Why capitalism triumphs in the West and fails everywhere else*, New York: Basic Books.
- Diemer, G. & E. van der Laan 1987, *L'Irrigation au Sahel*, Paris: Karthala.
- Doumbia, M., A. Berthe & J. Aune 2005, *Integrated Plant Nutrient Management in Mali. Summary Report 1998-2004*, Mijohuset, Norway: Drylands Coordination Group.
- Edja, H. 2001, *Land Rights under Pressure: Access to Resources in Southern Benin. Land tenure and resource access in West Africa*, London: International Institute for Environment and Development.
- Ellis, F. 1999, *Rural livelihood Diversity in Developing Countries: Evidence and policy implications*, London: Overseas Development Institute, Natural Resource Perspectives No 40.
- Ellis, F. 2000, *Rural Livelihoods and Diversity in Developing Countries*, Oxford: Oxford University Press.
- Ellis, F. & S. Biggs 2001, 'Evolving Themes in Rural Development'. *Development Policy Review* 19 (4) 437-448.
- Ellis, F. & H. Freeman (eds) 2005, *Rural Livelihoods and Poverty Reduction Policies*, London: Routledge.
- Fairhead, J. & M. Leach 1996, *Misreading the African Landscape: society and ecology in a forest-savanna mosaic*, Cambridge: Cambridge University Press.
- First, R. 1983, *Black Gold*, Brighton: Harvester.
- Francis, P. 1984, "'For the use and common benefit of all Nigerians": Consequences of the 1978 land nationalization, *Africa* 54 (3): 5-28
- Francis, P. & R. James 2003, 'Balancing Rural Poverty Reduction and Citizen Participation: The contradictions of Uganda's Decentralization Programme', *World Development* 31 (2): 325-337.
- Gallais, J. 1975, *Pasteurs et Paysans du Gourma: La condition sahelienne*, Paris: Memoires du Centre d'Etudes de Geographie Tropicale du Centre National de la Recherche Scientifique.
- Gray, L. & M. Kevane 2001, 'Evolving Tenure Rights and agricultural Intensification in Southwestern Burkina Faso', *World Development* 29 (4): 573-587.
- Hammel, R. 2001, *Securing Land for Herders in Niger*, London: International Institute for Environment and Development, Drylands Issues Paper no.102.
- Haswell, M. 1963, *The changing pattern of economic activity in a Gambia village*, London: HMSO.

- Hill, P. 1963, *The Migrant Cocoa Farmers of Southern Ghana*, Cambridge University Press, Cambridge.
- Hill, P. 1972, *Rural Hausa: A village and a setting*, Cambridge: Cambridge University Press.
- Hughes, D. 2001, 'Cadastral Politics: The making of community-based resource management in Zimbabwe and Mozambique', *Development and Change* 32: 741-768.
- Hulme, D. & A. Shepherd 2003, 'Conceptualising Chronic Poverty', *World Development* 31 (3): 403-423.
- IFAD 1994, *A Dialogue on Capitol Hill. Workshop on Land Degradation and Poverty in sub-Saharan Africa. Challenges and Opportunities*, Rome: International Fund for Agriculture and Development.
- IFAD 2001, *Rural Poverty Report 2001 – summary*, Rome: International Fund for Agricultural Development.
- IIED 1999, *Land Tenure and Resource access in West Africa: Issues and opportunities for the next twenty five years*, London: International Institute for Environment and Development.
- Inamdar, A., D. Brown & S. Cobb 1999, *What's Special about Wildlife Management in Forests?*, London: Overseas Development Institute, Natural Resource Perspectives No 44,
- Jensen, M. & P. Gibbon 2007, 'Africa and the WTO Doha Round: An overview', *Development Policy Review* 25 (1): 5-24
- Kasanga, K. & N. Kotey 2001, *Land Management in Ghana: Building on tradition and modernity. Land Tenure and Resource Access in West Africa*, London: International Institute for Environment and Development.
- Kinsey, W. 2005, 'Fractionating Local Leadership: Created authority and management of state land in Zimbabwe', in: S. Evers, M. Spierenburg & H. Wels (eds), *Competing Jurisdictions. Settling Land Claims in Africa*, Leiden: Brill.
- Kjekshus, H. 1977, *Ecology, control and economic development in East African history*, London: Heinemann.
- Koning, N. & E. Smaling 2005, 'Environmental Crisis or 'Lie of the Land'? The debate on soil degradation in Africa', *Land Use Policy* 22: 3-11.
- Kuba, R. & C. Lentz (eds) 2006, *Land and the Politics of Belonging in West Africa*, Leiden: Brill.
- Lawrence, P. (ed.) 1986, *World Recession and the Food Crisis in Africa*, Oxford: James Currey.
- Leach, M. & R. Mearns (eds) 1996, *The Lie of the Land*, Oxford: James Currey.
- Lipton, M. 1977, *Why Poor People Stay Poor: Urban Bias in World Development*, London: Temple Smith.
- Low, A. 1986, *Agricultural Development in Southern Africa. Farm household economics and the food crisis*, Oxford: James Currey.
- Mamdani, M. 1996, *Citizen and Subject. Contemporary Africa and the legacy of late colonialism*, Oxford: James Currey.
- Marzetti, G. 2001, *Rural Livelihoods and Agrarian Change: The dynamics of poverty. A case study from Morrumbala District, Mozambique*, PhD Thesis, Manchester: University of Manchester.



- Mathieu, P., M. Zongo & L. Paré 2002, 'Monetary Land transactions in Western Burkina Faso: Commoditisation, papers and ambiguities', *The European Journal of Development Research*, 14 (2): 109-128.
- Mellor, J. 1976, *The New Economics of Growth*, Ithaca, New York: Cornell University Press.
- Migot-Adholla, S., P. Hazell, B. Blarell, & F. Place 1993, 'Indigenous land rights systems in Sub-Saharan Africa, A constraint on productivity?', in: K. Hoff, A. Braverman & J. Stiglitz (eds.), *The Economics of Rural Organization*, Oxford: Oxford University Press.
- Moorhead, R. 1989, 'Changes taking place in Common Property Resource Management in the Inland Delta of Mali', in: F. Berkes (ed.), *Common Property Resources: Ecology and community-based sustainable development*, London: Belhaven Press.
- Mortimore, M. 2003, *The Future of Family Farms in West Africa. What can we learn from long-term data?*, London: International Institute for Environment and Development, Drylands Issues paper 119.
- Murton, A. 1999, 'Population Growth and Poverty in Machakos District, Kenya', *Geographical Journal*, 165 (1).
- Murray, C. 1992, *Black Mountain. Land, Class and Power in the Eastern Orange free state, 1890s-1990s*, Edinburgh: Edinburgh University Press.
- Neven, D. & T. Reardon 2004, 'The Rise of Kenyan Supermarkets and the Evolution of their Horticultural Product Procurement Systems', *Development Policy Review* 22 (6): 669-699.
- Ostrom, E. 1990, *Governing the Commons: The evolution of institutions for collective action*, New York: Cambridge University Press.
- Pearse, A. 1980, *Seeds of Plenty, Seeds of Want. Social implications of the Green Revolution*, Oxford: Clarendon Press.
- Peters, P. 1994, *Dividing the Commons: Politics, policy and culture in Botswana*, Charlottesville: University Press of Virginia.
- Peters, P. 2004, 'Inequality and Social Conflict Over Land in Africa', *Journal of Agrarian Change* 3 (1/2): 269-314.
- Peters, P. 2006, 'Rural Income and Poverty in a Time of Radical Change in Malawi', *Journal of Development Studies* 42 (2): 322-345.
- Peters, P. & D. Kambewa 2007, 'Whose security? Deepening social conflict over 'customary' land in the shadow of land tenure reform in Malawi', *Journal of Modern African Studies* 45 (3): 447-472.
- Platteau, J-P. 2000, 'Does Africa Need Land Reform?', in: C. Toulmin & J. Quan (eds), *Evolving Land Rights, Policy and Tenure in Africa*, London: DFID/IIED/NRI.
- Quan, J. 2000 'Land Boards as a Mechanism for the Management of Land rights in Southern Africa', in: C. Toulmin & J. Quan (eds), *Evolving Land Rights, Policy and Tenure in Africa*, London: DFID/IIED/NRI.
- Rakodi, C. & C. Leduka 2004, *Informal land delivery processes and access to land for the poor: a comparative study of six African cities*, Birmingham: University of Birmingham, Policy Brief No 6, Informal Land Delivery Processes in African Cities.
- Ramisch, J. 1999, *The long dry season: Crop-livestock linkages in Southern Mali*, London: International Institute for Environment and Development, Drylands Issues Paper No. 88.

- Ravnborg, H. 1992, *The CGIAR in Transition. Implications for the poor, sustainability, and the National Research Systems*, London: Overseas Development Institute, Agricultural Administration (Research and Extension) Network Paper 31.
- Raynaud, C. 1997a, 'Populations and Land: Multiple Dynamics and Contrasting Realities', in: C. Raynaud (ed.), *Societies and Nature in the Sahel*, London: Routledge.
- Raynaud, C. 1997b, 'The Demographic Issue in the Western Sahel: From the global to the local scale', in C. Raynaud (ed.), *Societies and Nature in the Sahel*, London: Routledge.
- Ribot, J. 2002, *Democratic Decentralization of Natural Resources. Institutionalizing popular participation*, Washington D.C.: World Resources Institute.
- Richards, P. 1985, *Indigenous Agricultural Revolution*, London: Hutchinson.
- Rigg, J. 2006, 'Land, Farming, Livelihoods, and Poverty: Rethinking the Links in the Rural South', *World Development* 34 (1): 180-202.
- Sandford, S. 1983, *Management of Pastoral Development in the Third World*, London: Wiley/Overseas Development Institute.
- Scoones, I. (ed.) 1994, *Living with Uncertainty: New directions in pastoral development in Africa*, London: IT Publications.
- Scoones, I. 1991, *Wetlands in Drylands: The agroecology of savanna systems in Africa. Part I: Overview*, London: International Institute for Environment and Development.
- Scoones, I. & C. Toulmin 1999, *Policies for Soil Fertility Management in Africa*, London: Department for International Development.
- Shackleton, S., C. Shackleton & B. Cousins 2000, *Re-valuing the Communal Lands of Southern Africa: New understandings of rural livelihoods*, London: Overseas Development Institute, Natural Resource Perspectives No. 62.
- Southgate, C. & D. Hulme 2000, 'Uncommon Property: The scramble for wetland in southern Kenya', in: P. Woodhouse, H. Bernstein & D. Hulme (eds), *African Enclosures? Social dynamics of wetlands in drylands*, Oxford: James Currey.
- Start, D. 2001, 'The Rise and Fall of the Non-Farm Rural Economy', *Development Policy Review* 19 (4) 491-506.
- Stocking, M. 1996, 'Breaking New Ground', in: M. Leach & R. Mearns (eds), *The Lie of the Land*, Oxford: James Currey.
- Tiffen, M., M. Mortimore & F. Gichuki 1994, *More People, Less Erosion*, Chichester: Wiley.
- Toulmin, C. 1992, *Cattle, Women and Wells: Managing household survival in the Sahel*, Oxford: Clarendon Press.
- Toulmin, C. & J. Quan (eds) 2000, *Evolving Land Rights, Policy and Tenure in Africa*, London: Department of International Development.
- Touré, O. & S. Seck 2005, *Family and Commercial Farming in the Niayes area of Senegal*, London: International Institute for Environment and Development, Dryland Issues paper 133.
- UNEP 2006, *Global Environmental Outlook*, Geneva: United Nations Environment Programme.
- Walker, C. 2005, 'The Limits to Land Reform: Rethinking the land question', *Journal of Southern African Studies* 31 (4): 806-824.

- Weatherspoon, D. & T. Reardon 2003, 'The Rise of Supermarkets in Africa: Implications for agrifood systems and the rural poor', *Development Policy Review* 21 (3): 333-355.
- Wiggins, S. & S. Proctor 2001, 'How Special are Rural Areas? The economic implications of location for rural development', *Development Policy Review* 19 (4): 427-436.
- Woodhouse, P. 1997, 'Hydrology, soils and irrigation systems', in: R. Levin & D. Weiner (eds), *"No More Tears": Struggles for land in Mpumalanga, South Africa*, Trenton NJ: African World Press.
- Woodhouse, P. 2003, 'African Enclosures: a default mode of development', *World Development* 31 (10): 1719-1733.
- Woodhouse, P., P. Trench & M. Tessougué 2000a, 'A very decentralised development', in: P. Woodhouse, H. Bernstein & D. Hulme (eds), *African Enclosures? Social dynamics of wetlands in drylands*, Oxford: James Currey.
- Woodhouse, P., H. Bernstein & D. Hulme 2000b, *African Enclosures? Social dynamics of wetlands in drylands*, Oxford: James Currey.
- World Bank 1996, *Toward Environmentally Sustainable Development in Sub-Saharan Africa: A World Bank agenda*, Washington D.C.: World Bank.
- WRI 1998, *The State of the World 1998*, Washington D.C.: World Resources Institute.
- Young, A. & A. Wright 1980, *Rest period requirements of tropical and subtropical soils under annual crops*, Rome: Food and Agriculture Organisation of the United Nations, Report of the second FAO/UNFPA Expert Consultation on and resources for Populations of the Future.
- Zaal, F. & T. Dietz 1999, *Of markets, meat, maize and milk: pastoral commoditization in Kenya*, Athens, Ohio: Ohio University Press.

## Confusing counts, correlates and causes of poverty: A study of the PRSP in Lesotho

Deborah Johnston & John Sender

*This chapter analyses the new Poverty Reduction Strategy Paper (PRSP) of Lesotho and considers whether it can be successful in terms of poverty alleviation. The answer to this question is likely to be negative, the main reason being that the PRSP approach precludes a focus on the heterogeneous nature of poverty and its determinants. To illustrate this, the characteristics of some of the very poorest households in Lesotho are discussed and the extent to which the PRSP is likely to assist them.*

### Introduction

The Poverty Reduction Strategy Paper (PRSP) in Lesotho is internationally acclaimed for the intensity of the consultation that took place during its drafting (DFIDSA-Lesotho 2004: 35, Roberts 2003: 1). With up to 20,000 people consulted out of a population of 2.14 million, Lesotho has one of the most consulted PRSPs (Roberts 2003: 15). In addition, unlike other PRSPs, the Lesotho PRSP has integrated other policy initiatives, such as the national plan Vision 2020 and the Millennium Development Goals.<sup>1</sup>

This chapter considers the extent to which the new PRSP is likely to be successful in assisting the poor in Lesotho. This assessment is based, in part, on the results of a previously unreported survey of poor women, but the methods and data used in the PRSP are also critically examined. The focus of the

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<sup>1</sup> See Cromwell *et al.* (2005: 16) for concern that PRSPs are often inconsistent with or superseded by other national plans.

Lesotho PRSP is an attempt to establish headcounts of poverty and a limited number of poverty correlates, such as the geographic location of the poor. Parallel to this, a set of poverty-reducing policies is developed. These policies, which are remarkably similar to those advocated in the PRS papers of many other African economies, emphasize investing in education and health and encourage foreign direct investment.

This chapter argues that while these policies have some merit, they are unlikely to benefit many of those among the poor. This is because the PRSP approach precludes a focus on the heterogeneous nature of poverty and its determinants. Three things are confused in the PRSP: snapshots of the number in poverty; an identification of the characteristics of the poor; and an understanding of the causes of poverty. Instead policy makers need to understand poverty in the context of dynamic local economic forces, external labour markets and domestic social structures.

### How is poverty understood in the PRSP?

World Bank and IMF guidance states that a PRSP should contain relevant, timely and credible poverty diagnostics, with a careful choice of appropriate targets and indicators. The Lesotho PRSP aims to follow these guidelines and claims support from the results of an extensive consultation process that captured popular views of the character and causes of poverty in Lesotho. During the development of the PRSP, researchers engaged in a participatory investigation of the views of people in 200 villages, mostly in the rural areas of Lesotho. In addition to consulting the public, the production of the PRSP also involved all parts of the Lesotho government as well as many NGOs and the private sector (DFIDSA-Lesotho 2004). However, we will argue that despite these consultations, the PRSP reveals only a limited understanding of poverty in Lesotho. The PRSP analysis of the prevalence and characteristics of poverty, as well as its policy proposals, are flawed.

#### *PRSP analysis of the prevalence of poverty in Lesotho*

In its attempt to quantify the prevalence of poverty in Lesotho, the PRSP uses an arbitrary poverty line, coupled with poor quality data. Interestingly, drafters made little use of the extensive consultation exercise in developing the poverty assessment section of the PRSP. In fact, the results of the consultation exercise were written up entirely separately (DFIDSA-Lesotho (2004: 21). Roberts's (2003: 29) interim review of the PRSP process came to a similar conclusion, saying that 'it is disappointing that the rich analysis of the community consul-

tations [report] (...) has not been sufficiently reflected in the poverty diagnostics chapter'.<sup>2</sup>

The poverty assessment chapter of the PRSP focuses on a money-metric definition of poverty. While earlier drafts had included district-level data on the Human Development Index, including important dimensions of poverty such as literacy and infant mortality rates, as well as the perceptions of poverty expressed by different social groups, parliamentarians, civil-society organizations and the private sector (Roberts 2003: 2), the final draft includes only national data on the Human Development Index, a brief mention of the 2002 Core Welfare Indicator Study and an even briefer mention of the multi-dimensional nature of poverty in Lesotho.

Using a calorie-based poverty line and the data from two, not strictly comparable official household surveys, the PRSP suggests that 58% of the population of Lesotho is poor, while 39% are ultra poor (Kingdom of Lesotho 2004: 9).<sup>3</sup> The severity of poverty appears to have increased over time. The 1986/87 household budget survey calculated a headcount poverty rate of 58% with ultra poverty at 35%, while a second survey in 1994/5 found little change in the overall poverty rate but an increase in ultra poverty to 39%. The results of smaller-scale private-sector-run surveys are quoted and they appear to confirm this trend (Kingdom of Lesotho 2004: 9).

The poverty line used in the PRSP was originally developed for the 2001 UNDP Lesotho National Human Development Report and is based on estimates of the cost of achieving a per capita daily intake of 2,200 kilo-calories (May *et al.* 2002: 4). This calorie intake was converted to necessary expenditure by using Consumer Price Index survey data to calculate the amount of expenditure associated with different calorie consumption levels. Recognizing that food needs were only one component of the bundle of consumption requirements of the poor, an amount for non-food expenditure was also added. This was determined by examining the actual non-food expenditure of those individuals in the CPI survey who appeared to be at the calorie-consumption threshold. This

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<sup>2</sup> However, it is important to note that the 'rich analysis' of the community consultation exercise was itself flawed in important respects. Roberts (2003: 1) argues that '[d]espite impressive nature of the consultation process, the quality and scope of the material has been negatively affected by the rather superficial knowledge of participatory techniques among some facilitators, insufficient attention to reporting protocols and analytical strategies, and the under-representation of urban areas.'

<sup>3</sup> In many developing economies, a very high proportion of all households surveyed (50% or more) clusters around the official poverty line. This has two consequences: first, it is possible to justify a wide range of policies on the grounds that they will have an impact on 'poor' households; and secondly, a very marginal shift in the poverty line will cause huge numbers of households to move into or out of the category of 'poor' households.

exercise yielded a per capita poverty line of M124 per person per month in 2001 prices,<sup>4</sup> which was then inflated by 2002 prices to arrive at a poverty line of M146 for the PRSP. The ultra-poverty line was defined, for no apparent reason, as being half this amount.

A calorie-based line has been used in Lesotho before but was set at a different and higher minimum calorie requirement per adult equivalent of 2,500 calories (Kingdom of Lesotho 1996: 8). Other lines have been used in Sub-Saharan Africa and 25 of these were surveyed by Hanmer *et al.* (1996): in 12 cases, the poverty line was based on a minimum calorie requirement that varied from a low of 1,700 calories per day in urban areas of Ethiopia to a maximum of 2,700 calories per adult equivalent in the Gambia. While these differences may be explained by a tendency to set higher poverty lines in more affluent countries, it is also clear that there were often no, or very shaky grounds, for setting the level of many of these lines.

Uncertainties about the choice of the poverty line arise for a number of reasons. First, calorie 'requirements' are based on assumptions about the desirable energy requirement for an individual, which will itself be determined by assumptions about standard (time-invariant) metabolic rates, weights and heights for particular age and sex categories. FAO (2001) data show that calorie requirements are very sensitive to both activity levels and weight. For example, FAO data (2001: 45) show that a moderately active 40-year-old woman will require 2,200 calories if she weighs 50 kg but 2,500 if she weighs 75 kg. If she weighs 50 kg and is very active (for example, as an agricultural labourer in an unmechanized environment), she will require 2,750 calories. Thus, age, gender and weight have a significant impact on the necessary calorie intake. To complicate matters further, some authors have argued that calorie minimums should be increased to take into consideration the greater illness rates faced by poor people (Svedberg 1987, Gabbert & Weikard 2001). More generally, it has been argued that the long-term energy requirement for adequate nutrition of an individual of a given age and gender and performing specified tasks 'is not a fixed number of kilocalories per day' (Srinivasan 2001: 158).

A second major difficulty with the poverty line in Lesotho is that adult equivalence scales and household economies of scale were not calculated (May *et al.* 2002: 46). As a result, no allowance is made for economies of scale and size in large households or for the reduced intake requirements of, for example, young children in relation to adults. However, such features are well known and the implications of their effects on poverty data have been measured elsewhere. For example, Székely *et al.* (2000: 17) show that poverty measures in Latin

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<sup>4</sup> The Lesotho currency, the Maloti, is pegged level to the South African Rand. At the time of interviewing, M7 would convert to approximately US\$2.

America were highly sensitive to assumptions about adult equivalence scales, with the overall poverty rate in the Latin American region ranging from 51% to 31% depending on the assumptions made. In addition to changing overall poverty headcounts dramatically, decisions over an adult equivalence scale or household economies of size will affect policy makers' identification of the characteristics of the poorest households (Lanjouw & Ravallion 1995). Not surprisingly, with no adjustments, the original poverty work completed for the UNDP Lesotho Human Development Report found that large households (where monthly expenditure is divided by a larger number) were consistently poorer than smaller households (May *et al.* 2002: 14-15). An important group of very small and malnourished households, containing for example a single woman and her children, will then be ignored.

A third problem, which also affects economies with a much more developed statistical service than Lesotho, arises from the use of inappropriate and/or insufficiently disaggregated CPI survey data. Different households, even within the same village, pay different amounts both for the food they consume and for other basic necessities; poorer people are usually in a weak position to purchase at the lowest prices (Sender 2002: 15). Apart from such interhousehold variation in prices, there are large spatial and intertemporal variations as well.<sup>5</sup> There are enormous practical and conceptual difficulties in attempting to update poverty lines through the revaluation of a given poverty bundle at prices that are specific to each household, region, district and period of time.

The problems mentioned above suggest that choices made when selecting an appropriate calorie-based line and its application will lead to considerable variation in poverty statistics. Without a disaggregated and up-to-date CPI survey, or adjustments for calorie-intake by gender, age and activity level, Lesotho's calorie-based line is hard to justify. The fact that the PRSP has established two lines, an absolute poverty line and a relative measure used to distinguish the ultra poor (defined as those living on less than half the poverty line), does little to lessen this problem. While the use of multiple lines is recommended in the World Bank's Operational Directive, as Hanmer *et al.* (1996: 6) have argued more generally, 'this is not the same as providing a motivation for the position of either line'.

In addition to the problems of defining an appropriate poverty line, there are indications that the quality of the official data is not good. The benchmark 1986/87 household survey had very high non-response rates (64% and 66%) on income for certain rural areas, despite its use of a trained survey team which

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<sup>5</sup> These differences raise serious questions about the common assumption in the analysis of household surveys that households purchase homogenous commodities in competitive markets in which the 'law of one price' holds (Srinivasan 2001: 160).



collected information on a monthly basis (Government of Lesotho 1988: 8). The results of the 1994/95 household survey were not publicly released due to concerns about data quality. May *et al.* (2001: 37) report on a UNDP-funded assessment which found a muddling of monthly and annual data; poor quality of data on domestic consumption; and general data entry errors. While some cleaning of this data occurred to calculate the poverty statistics used in the PRSP, the extent to which these problems were rectified has not been made public.

The problems faced in the production of official statistics are also illustrated by the severe capacity constraints which prevented PRSP drafters from using the results of the more recent (2002/03) official household budget survey. The analysis of this survey had still not been completed by mid 2006. The fact that the poverty data used by the PRSP is a decade old has also been a source of criticism. Roberts (2003: 26-27) argues that the data must be considered to be significantly out-of-date and so will not represent 'a number of societal dynamics since the early 1990s', such as the continuing retrenchment of migrant mineworkers,<sup>6</sup> political disturbances, the progression of the HIV/AIDS pandemic as well as several food security crises.

Given the methodological problems cited, there are reasons to be concerned about the quality of both the headcount and trend data. More fundamentally, it should be clear that the national poverty headcount in relation to an arbitrarily drawn poverty line is, in itself, a meaningless statistic (Hanmer *et al.* 1996).

#### *Correlates and causes of poverty*

After a cursory reference to the consultation exercises, which found that a poor person is someone without wage employment, skills or access to basic services (Kingdom of Lesotho 2004: 8), drafters of the PRSP use official data to discuss the concentration and causes of poverty. The PRSP states that 'the greatest determinant of variation is geography' (Kingdom of Lesotho 2004: 10), as official data and other studies show that rural and particularly mountainous areas of Lesotho are the poorest.<sup>7</sup> In addition, the PRSP (*ibid.*) states that '(s)econd only to geography is gender', as the data consistently show that *de jure* female-headed households (i.e. those headed by single, divorced, widowed or abandoned women) have the highest incidence of poverty.<sup>8</sup> Despite gender being mentioned in the poverty diagnostics chapter, it is not analyzed, or even dis-

<sup>6</sup> In 1990 the number of migrant mineworkers from Lesotho was over 127,000; by 2003 the number had fallen to fewer than 60,000 (Cobbe 2004).

<sup>7</sup> In the background study, May *et al.* (2002: 11) found that 72% of rural households were poor in 1994, compared to less than 30% in the capital Maseru.

<sup>8</sup> May *et al.* (2002: 16) found that 62% of *de jure* female-headed households were poor, compared to 58% of male-headed households and 55% of *de facto* female-headed households.

cussed, consistently in the rest of the PRSP. The most detailed policy area for women is that of health and there is limited discussion of other issues, such as education and governance. Roberts (2003: 37) says 'Particularly worrying is the omission of gender in Trade, Tourism and Industry, Agriculture and Rural Development, Mining and Employment, since these have been designated as the priority economic strategies for pro-poor growth'.

Outside of the poverty assessment section, the PRSP makes descriptive reference to the important relationship between HIV/AIDS<sup>9</sup> and poverty, and also vulnerability in childhood and poverty (Kingdom of Lesotho 2004: 97-98, 106). There is no appreciation of the urgency of the need to link data on seroprevalence data with socio-economic status, especially to patterns of labour market participation (Sender *et al.* 2005: 7-10). We will argue that this analysis does not assist in the design of poverty policies and appears to confuse two concepts: the correlates of poverty (i.e. selected characteristics of the poorest); and the determinants of poverty.

A central issue is that headcount approaches do not differentiate sufficiently between different types or classes of poor people, instead relying on a simple poor versus non-poor dichotomous categorization. This is particularly problematic when, as in the case of Lesotho, almost 60% of the population are considered poor.<sup>10</sup> As Hanmer *et al.* (1996: 10-11) argue, with such a large group of the population defined as poor, poverty reduction efforts become almost indistinguishable from general development measures. The apparent homogeneity conferred on the poor is at odds with data showing that Lesotho is highly unequal. Gini coefficients for per capita expenditure drawn from the official household budget surveys discussed above suggest that the inequality is very high and rising, reaching 0.6 in 1986/87 and 0.66 in 1994/95 (May *et al.* 2002: 42). Studies that use qualitative or alternative methods to the household budget surveys confirm increasing differentiation in Lesotho (Johnston 1997: 265-292, Wright 1993: 148-180).

A better starting point would be some disaggregation of the poor. However, this requires a move away from disaggregations that rest on simple correlates of poverty to those that have a stronger analytical basis. For example, the finding that rural and particularly mountainous areas are characterized by greater poverty does not itself explain why this pattern of poverty exists. Living in

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<sup>9</sup> The prevalence rate of HIV/AIDS amongst adults between 15-49 years has risen in Lesotho to 31% in 2002, which is one of highest in the world (Kingdom of Lesotho 2004: xx).

<sup>10</sup> The background study found that poverty was 'concentrated' in a wide group of people: female-headed households, people living in rural areas, the elderly, children, and those who rely upon agricultural production and agricultural assets (May *et al.* 2002: 43).

mountainous areas cannot explain poverty without an understanding of the analytical factors that cause poverty. It is not living in the region *per se* that causes poverty but the barriers to mobility faced by some of those living there, combined with ‘factors such as the region’s remoteness, with consequent poor access to markets and services or its ecological characteristics’ (Hanmer *et al.* 1996: 10). As we argue below, the finding that poverty is concentrated in rural areas does not sufficiently delineate the different groups of rural poor, nor does it help us understand how changes in urban areas, or outside Lesotho’s borders, might assist in reducing rural poverty. Similarly, we cannot understand the concentration of poverty in *de facto* female-headed households unless we understand the economic, social and political reasons why the absence of a male-household head might confer disadvantage. A long quote from Green & Hulme (2005: 870) on the poverty of widow-headed households in South Asia exemplifies this:

Poverty as an effect experienced by members of such households, notably the widow herself, is not a straightforward matter of an absence of an input in the form of male labour, or reduced dependency ratios, or the fact that a male household head might have access to a wage as a labourer or migrant worker, or even as a successful farmer. Rather, it is due to the ways in which adult female personhood is constituted as depending on a male spouse for access to various kinds of rights, including those over what is constituted as “property” (...) Importantly, this social casting of widows as second-class citizens, and the associated processes of asset stripping, is politically institutionalized within customary, statutory, and common law systems that licence and perpetuate such processes of impoverishment.

Without linkage to an analytical framework, the description of poor households in terms of their characteristics says nothing about why these characteristics cause poverty.<sup>11</sup> For an understanding of the causes of poverty, the situation of the poor has to be assessed in terms of wider macroeconomic or socio-political factors. At a minimum, we have to understand the economic, social and political structures that determine the markets that the poor have access to, as well as the determinants of outcomes in these markets. The impor-

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<sup>11</sup> Thus, Srinivasan (2001: 163) argues that ‘Unless one has an analytical framework that describes the mechanisms through which policies affect the determinants of poverty in all its dimensions and their quantitative significance, poverty alleviation policies cannot be well-formulated (...) This problem would remain even if there were some best way of counting the poor at any level of disaggregation.’ The distancing between the characteristics of the poor and the economic and social relations that produce poverty is the reason why many studies in poor countries identify the poor as having similar characteristics, such as headship by a single female, ‘a large number of dependants, [and] (...) inadequacies in access to such inputs as fertilizers and tools, education, draught animals, or credit’ (Green & Hulme 2005: 869-70).

tance of understanding these factors arises from the fact that they are not static, and neither are they immutable to policy.

Therefore, the broad headcount measures presented in the Lesotho PRSP are not only empirically flawed but are also not useful for understanding the causes of poverty in Lesotho. Three different purposes are confused: describing the prevalence of poverty; selecting certain characteristics of the poor; and understanding the various causes of poverty. As we shall see, this lack of delineation of the causes of poverty for different sub-groups of the poor facilitates vague and ill-targeted policy proposals.

*PRSP policies to combat poverty*

Looking at PRSP policies, one is confronted by a long list of policies presented under various themes. However before discussing these themes, it is important to note that the 'shopping list' of policies is constrained by the fact that the primary focus of the PRSP is macroeconomic stability, in the sense that the document aims to confine overall spending plans in line with the government's Poverty Reduction and Growth Facility (PGRF) commitments with the IMF. The fiscal framework commitments imply that the real value of government expenditure should grow less than GDP (IMF 2006: 5). However, the PRSP costings are M1.2 billion per annum over three years, which represents an increase in total aggregate expenditure of approximately 30% (Kingdom of Lesotho 2004: xxiv). This dwarfs even the ambitious growth targets used in the PRSP, and the costings do not include many of the policy elements listed in the PRSP. Therefore it is inevitable that only a sub-set of PRSP activities will be carried out, even if the government is able to obtain substantial additional aid to support its poverty reduction spending. The obvious trade-off between complying with macroeconomic conditionality and poverty reduction is not set out clearly in the PRSP. This is common to other PRSPs as well (Cromwell *et al.* 2005: 3).<sup>12</sup>

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<sup>12</sup> It appears that the trade-off between macroeconomic orthodoxy and poverty reduction was not highlighted by other organizations either. Six of the 18 NGOs that participated in the PRSP process were interviewed in a recent assessment of Lesotho's PRSP a few months after the consultation process began. In interviews they suggested that 'participating CSOs noted a similarity between the PRSP and the Structural Adjustment Programme (SAP) but did not feel the urge to revisit the macroeconomic framework sculpted by the government in pursuit of the PRSP. This contrasts somewhat with the posture formerly adopted by the CSOs in the context of the SAP. The present disinclination for unpacking the policy package may be informed by (...) the experience of defeat on this matter in the context of the SAPs' (Panos 2002: 40).

Assumptions about the future level of economic growth affect the PRSP in three ways. As well as having a direct impact on poverty through increased household income, economic growth will have an indirect impact through its affect on government revenues and by allowing additional public expenditure under PGRF rules.<sup>13</sup> The direct impact of growth on poverty is acknowledged to be low in Lesotho. The PRSP makes reference to the high real growth rates since 1980 (averaging 4.2% per annum) but says that '[t]here is no evidence (...) of the economic benefits of these relatively high growth rates "trickling down" to enough households to stem the tide of growing poverty' (Kingdom of Lesotho 2004: 2). This conclusion is largely based on work on poverty elasticities carried out for the UNDP Lesotho Human Development Report 2001, detailed in May *et al.* (2002). In the UNDP report, a partial poverty elasticity of GNP growth of  $-0.12$  is calculated, suggesting that a 1% increase in GNP resulted in about a 0.1 per cent decline in the incidence of poverty (May *et al.* 2002: 7-9).<sup>14</sup>

As a result, the PRSP argues that not only high growth but also redistributive policies will be needed (Kingdom of Lesotho 2004: 3). However, before moving on to discuss the detail of these policies, it is important to note that the growth estimates in the PRSP are extremely ambitious and are not consistent with other estimates. The PRSP targets a medium-term real GDP growth rate of 7% by 2007, although it does not specify the source of this growth. This is ambitious given real GDP growth rates of 3.3% and 2.0% in 2003 and 2004, as well as current indicators of the decline in the garment industry following the phasing out of the Multi-Fibre Agreement.<sup>15</sup>

In summary, PRSP policies aim to create an enabling environment for labour-intensive investment, support agricultural growth and provide public services. A set of cross-cutting initiatives aimed at reducing HIV/AIDS preva-

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<sup>13</sup> Estimates of the relative size of these effects are not given precisely as the PRSP was not developed using a macroeconomic forecasting model.

<sup>14</sup> The calculation of poverty elasticities has been criticized for the simplifying assumptions that they make (see Karshenas 2005). It is widely acknowledged that in many poor countries with a highly unequal distribution of income, growth is not very effective in reducing poverty (Ravallion 2005).

<sup>15</sup> Roberts (2003: 11) notes that the high annual growth rates of real GDP between 1988 and 1994 averaging 8.5% can be largely attributed to construction activity under the Lesotho Highlands Water Project and export growth in textiles and garments. Construction activity under the Lesotho Highlands Water Project is now completed. The IMF (2006: 5) notes that the sources of growth are not identified in the PRSP and that the target growth rates are unrealistic: 'The erosion of trade preferences stemming from the phasing out of quotas under the Agreement on Textiles and Clothing (ATC) (...) is hurting the garment sector, and (...) is not taken into account in the PRS'.

lence and mitigating its effects is also presented.<sup>16</sup> The fact that the PRSP is overly optimistic about fiscal feasibility and growth suggests that the Government of Lesotho will be unable to implement the large set of policies outlined in the text. To understand what is most likely to be implemented, one has to dig deeper within the PRSP by making use of the prioritization matrix and budget costings provided. The PRSP prioritization matrix shows which policies are seen as priority activities, while the budget indicates which policies have been budgeted for. This presents something of an immediate problem, as some priority policies are not allocated funds within the PRSP's already ambitious budget while some non-priority policies have been. In the following discussion we will focus only on those policies that were ranked as priority areas, although mention will be made of others where appropriate.

The first thematic area is employment creation, which focuses on attracting foreign investment and supporting small and medium-sized enterprises. This reflects the high priority given to unemployment in a country where the official unemployment rate is 31%, with the percentage without waged employment considerably higher (Kingdom of Lesotho 2004: xi). The two highest-ranking policy initiatives are the reduction in administrative procedures to attract investment, and support to small and medium-sized enterprises. Second-tier initiatives include: the provision of basic infrastructure crucial for investment; the facilitation of international trade; and the development of market opportunities. The adoption of appropriate technology is also ranked as a second-tier policy action but it is not budgeted for. Third-tier policy activities include improvements in efficiency in attracting investment, and also improvements in the process of issuing travel documents (to assist migrant workers). However, again, this latter initiative is not budgeted for. Finally, a fourth tier of policy initiatives is identified, which includes the development of mining and agri-business. This tier also includes policy activities aimed at encouraging a better gender balance in industrial recruitment, but this activity is not budgeted.<sup>17</sup>

The second thematic area is the development of agriculture to increase production and meet food security needs. Highest priority is given to three policy areas: the adoption of appropriate farming practices and ensuring timely access to inputs; the development of appropriate irrigation schemes; and livestock improvement. A sole second-tier policy action is identified; that of strengthening

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<sup>16</sup> While the PRSP suggests that these themes were heavily influenced by the public consultation process (Kingdom of Lesotho 2004: 1-2), it is important to note that there is little change in policy focus from earlier documents, as recognized in the PRSP executive summary (ibid.: viii) which says that the 'PRS introduces few entirely new activities (...) mostly it extends coverage of ongoing activities'.

<sup>17</sup> Employment in the garment sector has been predominantly female, leading to increasing concerns about male unemployment (Kingdom of Lesotho 2004: xxi).

and decentralizing extension services. Interestingly, revision to land tenure practices are mentioned in the PRSP and are budgeted, but are not prioritized, reflecting perhaps the political sensitivity of this area.

Another set of thematic initiatives is related to the greater provision of health, infrastructure and education services. These policies are allocated over 70% of the PRSP budget and, within this, the vast bulk is allocated to infrastructure. Under initiatives to improve health and education services, high priority areas include the strengthening of disease prevention programmes; the expansion of free primary education to universal basic education; a reduction in non-fee barriers to education; a reduction in the high rate of school drop-outs; and an increase in access to vocational and non-formal education.

Finally, a small set of safety-net policies are identified in the PRSP. Prioritized safety-net initiatives include an expansion of the bursary system for secondary education, as well as the provision of nutritional support and social welfare services to vulnerable groups. However, these are only partially budgeted for, although the government may be expecting to make up the shortfall with donor funds. More clearly excluded from budgeting and from prioritization is the provision of pensions to the over-seventies and social security generally. While these are included in the main PRSP text (Kingdom of Lesotho 2004: 27-28), they are not given priority status and are not budgeted for.<sup>18</sup> Support measures for HIV/AIDS are prioritised in the PRSP, and include measures related to prevention and mitigation. However, budgets are presented for HIV/AIDS-related activities, with the explanation being that finances are likely to be available through the Global Fund and also a national fund (Kingdom of Lesotho 2004: Annex 2 PRSP Cost Matrix).

In conclusion, it can be seen that despite the impression of a wide scope of policy initiatives, the PRSP is likely to be constrained by the fiscal targets set by the PGRF and also the feasibility of obtaining additional funding. With an overly ambitious budget, it is likely that only some of those policy initiatives that have been prioritized will be implemented, while many of those that have not will almost definitely not be put into action. However, priority policy initiatives are remarkably similar to those set out in the Interim PRSP and past policy papers (May *et al.* 2001: 11-14). They focus on the creation of an enabling environment and on the provision of services to improve education and health. In the next section, we present the results of a survey of poor people which will be used to consider the likely policy impacts on this sub-set of the poor.

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<sup>18</sup> This is despite earlier analysis (May *et al.* 2002: 44-46) that suggested that direct transfers and pensions in particular could be affordable and would substantially reduce poverty in Lesotho.

### Alternative approach to understanding poverty

To identify the causes of poverty among disparate groups, we need to move away from a focus on overall welfare levels across the population as a whole, or the rural and urban areas. Instead, purposive surveys (Sender 2003, Sender *et al.* 2005) or functional samples (Hanmer *et al.* 1996) have been suggested, i.e. surveys that identify particular groups among the poor and attempt to understand their survival strategies within particular markets and social structures. The results of a previously unreported purposive survey are discussed here to show how such a purposive survey can illustrate more clearly the causes of poverty and the impacts of policy for particular sub-groups of the poor.

The research described here focused on poor women who had migrated from Lesotho to the farms of the South African Eastern Free State. Such work paid low wages, with average earnings of R5.55 a day.<sup>19</sup> The work was often arduous, with women working on average 10 hours a day and 6.5 days a week. The seasonality of the work meant that the working period was uncertain, and many women worked illegally without contracts or immigration papers, thereby risking deportation or jail. Despite these gruelling working conditions, farmers and recruiters reported turning down a high number of applicants.

One hundred and fourteen female Basotho migrant farm labourers and their families were interviewed in 1993. All were migrant labourers working on the farms of the neighbouring Free State area of South Africa. Some were legal migrants, others illegal. Seventy-seven per cent were resident in the rural areas of Thabana Morena and Matela, while the rest were resident in the peri-urban Qoaling area of Maseru, the capital of Lesotho. Rather than random sampling of households, respondents were sampled using a purposive sampling design, which aimed to identify female migrant farm workers and collect detailed data not only on their characteristics but also on their economic activities. In addition, information was collected from five of the border farmers who employ migrants from Lesotho and with a farm-worker employment agency.

As well as an alternative sampling approach, the survey also used an alternative measure of economic wellbeing in order to avoid the types of problems related to those mentioned above in measuring income and consumption. This measure is based on a composite score of household possessions and has been applied successfully elsewhere (Jodha 1989, Sender & Smith 1990, Pincus 1993, Sender & Johnston 1995, Sahn & Stifel 1999, Filmer & Pritchett 1999). There are a number of advantages to the household possession score approach.

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<sup>19</sup> At the time of interviewing, there were approximately 3.36 South African Rand to the US Dollar. This suggests that the daily wage was US\$1.65 per day.





Map 3.1 Lesotho and research locations

Data on assets may be less prone to measurement error since problems with memory or definition are minimized and problems with valuation and the estimation of depreciation are not incurred. Also, the data on assets may be a better indicator of long-term welfare than either expenditure or income as both can be affected by short-term volatility. The assets discussed here were chosen to make a comparison of poverty with the most recent country-wide poverty study of Lesotho, which itself had used participatory research to compile a list of items without which a household was considered to be poor by those interviewed (see Table 3.1) (Gay *et al.* 1991).

Table 3.1 shows a comparison of results from the farm-worker survey and the poverty 'map' mentioned above (Gay *et al.* 1991). The results show that, as a group, farm workers are poorer than the average household in Lesotho. On the full range of poverty indicators, farm-worker households were more likely to be deprived according to each specific indicator. This is confirmed by the results of a 1998 survey of 152 migrant farm workers from Lesotho (Ulicki & Crush 2000). Authors of this study compared their results on livestock ownership to national data, and on this basis concluded that migrant farm workers held fewer livestock than other households and so were relatively poor.

Table 3.1 Comparison of household characteristics with Poverty Map results

	% of households		Within farm-worker sample	
	Poverty Map national average	All farm-worker households	Rural farm-worker households	Urban farm-worker households
No savings account	63.9	78.1	79.5	73.1
No radio	42.1	50.0	51.1	46.2
No latrine	69.0	56.1	68.2	15.4
More than 3 people per room	29.4	54.4	59.1	38.5
No piped water	48.3	51.8	55.7	38.5
Fewer than two bags of cereal per person	80.5	85.1	83.0	92.3

Source: Gay *et al.* (1991: 26), Johnston (1997)

Interestingly the relative picture is the same for urban farm workers. The disaggregated data in Table 3.1 show that even urban farm-worker households (column 4) perform badly compared to the national poverty map data (column 1), although they are more likely to have access to a latrine and piped water than the national average. Thus urban status does not protect these farm workers from displaying characteristics that show relative disadvantage and so, in this case, geography plays a secondary role to other factors.

This conclusion is supported by a detailed comparison of the results for each enumeration area in the Poverty Map and in the survey of farm workers. Table 3.2 shows Poverty Map data on the average household in the relevant enumeration area and compares it to farm-worker household data from that area. The data for each area show the relative poverty of farm workers compared to the average household in the area. The only exceptions are two indicators for farm workers in Maseru South (column 2) compared to average households in the areas (column 1): the percentage of households having more than three people per room; and the percentage of households producing less than two bags of cereal per person. It is difficult to assess the reason for such a low prevalence in terms of the former indicator, although the difference is likely to stem from methods of counting household members (which may then cast doubt on all similar comparisons). For the second indicator, the difference between the two sets of results is relatively small. Overall, the results shown in Table 3.2 in-

*Table 3.2* Comparison of household characteristics by census area (% of households)

	Maseru South		Thabana Morena		Matela	
	Poverty Map average	<i>Farm-worker households</i>	Poverty Map average	<i>Farm-worker households</i>	Poverty Map average	<i>Farm-worker households</i>
No savings account	43.5	73.1	91.4	92.7	83.3	76.5
No radio	24.0	46.2	35.8	58.5	30.7	61.8
No latrine	14.0	15.4	83.3	87.8	64.2	70.6
More than 3 people/room	30.9	11.5	44.9	63.4	31.7	41.2
No piped water	7.6	38.5	76.9	68.3	60.8	73.5
Fewer than 2 bags of cereal per person	94.6	92.3	34.9	51.2	46.3	55.9

Source: Gay *et al.* (1991: 143, 145, 158), Johnston (1997)

dicating the importance of attempting to identify poor people rather than poor areas. Consequently, they provide a contrast to the geographic story found in the PRSP.

Migrant farm-worker households had minimal agricultural assets. For purposes of clarity, only the results for rural migrant farm workers will be reported here (as opposed to those living in urban areas). While many rural farm-worker households had made small gardens on their homestead plots, only 55% had access to farmland and, of these, only 30% had a plough and only 44% had any cattle. Even among those that did have cattle, more than a third owned only one animal, while six cattle are usually needed for a ploughing team. Thus, very few households could use their own resources for ploughing and traction, and so would be dependent either on hiring in such resources or on reciprocal work schemes. Households owned few other livestock. Eighty per cent had no sheep and 77% had no goats. The figures for ownership of hens and pigs, usually considered as 'women's cattle', are even more striking. Of rural households with land, half had no hens and almost 70% had no pigs.

Earlier, some headline data on cereal production were used to compare relative poverty levels. It is worth investigating these a little more, bearing in mind that data were collected for the respondent's best-ever harvest. For landed rural households, 14% of households grew no maize or sorghum, while 50% harvested four bags or fewer (a bag is assumed to be 80 kg). A common assumption made for Lesotho is that an adult requires 180 kg of cereal crops per year to meet consumption needs (Gay *et al.* 1991: 20). Thus, even in the year of

their best harvest, those households with access to farm land produced only 85% of their physical subsistence needs. The figure for all rural households is 60% in the best harvest year. It should be noted that this is a comparison to physical consumption needs and so does not include the degree to which households are able to generate cash income from crop sales to meet other subsistence necessities (such as clothing, education and health care). Only 21% of landed rural respondents reported selling any of the produce they had grown themselves.

The importance of access to wage employment is evident when it is noted that women in these households received little financial support either from household residents or others. Two factors appear to explain this: first, an absolute lack of employment opportunities for other household members; and second, an absence of male financial support. Looking at adults in the 25-64 year age range, 67% of migrant farm-worker households contained no currently working resident adult (either full-time or part-time resident). This compares to a 1991 country-wide poverty survey that found that four households out of ten had no regular wage earner at all (Gay *et al.* 1991: 26). Thus, it is clear that farm-worker households experienced unemployment far more severely than other households. At the same time, these households contained few adult men. Amongst the working-age residents (including those who worked elsewhere but returned home regularly), almost 60 per cent were women. Less than 50% of women lived with a man (either a husband or a boyfriend) and 41% of women had been either widowed or divorced. This goes some way to explaining why women in these households were rarely in receipt of remittances from male workers. Less than one fifth of all women received monthly financial support from a man (a husband, a boyfriend or the father of their children). This figure did not change even where women had a very young child. For example, when the sample was restricted to women with children aged 6 years or younger, only 17% received monthly remittances from a man (and this rose to only 31% when a looser definition of 'remittances received twice a year' was used). Even where women were married (or cohabiting) and their partner was resident regularly, only one third received monthly financial support.

Table 3.3 shows the education levels of women in the sample households. While few had completed primary school, the vast majority had had some access to education. Interestingly, a fifth had some post-school training.

A superficial analysis of these characteristics, e.g. landlessness, lack of livestock, lack of access to wages, shows a similarity to the characteristics found in the PRSP and in other poverty studies across different geographic areas, as discussed above. The reasons that these characteristics have become causes of poverty are discussed in the next section.

*Table 3.3* Women's educational status (all farm-worker households)

	% of all women 25 years and older
Attended school	89.8%
of whom: - average number of years	6 years
Had some post-school education	22.9%
of whom: - average number of months	12 months
- college/professional	0%

Source: Johnston (1997)

### Determinants of poverty

One of the most significant features of these households is their lack of access to a male wage. This occurs for a number of reasons: widowhood; a lack of maintenance after divorce or desertion; but also male unemployment. Thus, the findings of this survey do not fully support the PRSP data on the poverty of *de facto* female-headed households. A more complex pattern is found where some of the undoubtedly poor households surveyed here contained men, but men who were unable to find work. In addition, problems were faced by the women in households containing working men who did not remit their income. Few women received remittances from those men who were working. Moreover, from informal discussions, it appeared that women had little control over the size and use of the remittances they received from men.<sup>20</sup> Thus, remittance income was not pooled between household members but was clearly earmarked for certain items of consumption. Gay (1980) argues that a woman's dependence on remittances does not reduce the uncertainty of her income, but may actually increase it. Women may be unsure of the size and frequency of remittances, or be unhappy with the intended use of the funds. Sharp & Spiegel (1990) also reached the same conclusion in their study of the former South African 'homelands' and argue that reluctance to depend on the remittances of men forces women to find their own income-earning opportunities. This survey of farm workers showed that women had important decision-making powers in terms of expenditure from their own income. When asked who decided how their wages were spent, approximately 70% of both married and single women said that they either decided expenditure solely or jointly with other family

<sup>20</sup> Often the remittance would be received in kind, either in food, household necessities or furniture. Both Gay (1980) and Showers (1980) argue that female dependence on remittances in Lesotho has led to conflict within the household on the use of these income flows.

members. Thus, the demographic characteristics of these poor households were complex. Men were often absent from these households, but not always. Where men were present, they were either unemployed or they refused to pool their income with the rest of the household.

It can be seen from the data above that even if urban households surveyed in the study are excluded, many households did not have access to farmland, although most cultivated small household gardens. But even those that had farm land could not meet all their food consumption needs and only a minority had ever sold produce. There was some evidence that poor households with land were unable to farm and so engaged in sharecropping. Consequently, the results suggest that land did not function effectively as a productive asset for this group of poor households.

The data showed that most women had had some access to primary school and more than one fifth had also had some post-school training. Of these, 83% had artisanal or craft training, with the average length of training being 12 months. This reflects the high level of aid received by Lesotho in the past and the attention given by donors to non-formal education (Gill 1992: 18-21). However, it is important to note that few of those trained were utilizing their training, except perhaps for young women who had trained in dressmaking and were employed in textile companies in Maseru. A case study of three women, who had recently worked as farm labourers, is illuminating. They formed part of a larger group who had received training in weaving techniques. It was envisaged that a cooperative venture would be set up to employ these women. The scheme failed due to the highly competitive conditions of the local tapestry market and a lack of management and marketing ability. The women interviewed had been unable to utilize their weaving skills and were forced into farm work. It is apparent that unrealistic goals were set by training agencies concerning the skills needed and the opportunities available to the women trained. Problems in marketing produce from income-generating schemes have been identified elsewhere (Government of Lesotho 1991: 152). A 1991 Government of Lesotho report found that a number of donor-sponsored income-generating projects were unsuccessful (*ibid.*: 155-156).

Moreover, respondents did not appear to earn significant income from any other type of self-employment. While many traditional crafts have waned in Lesotho (e.g. DFIDSA-Lesotho 2004: 15), Murray (1981) and Spiegel (1980) both discuss the stimulus to certain types of local production from migrant remittances, especially beer brewing and house-building (see also Gay 1980: 241-244). One rural study found that 34% of women earn some income from brewing, either individually or in cooperatives (quoted in Gill 1992: 9, Government of Lesotho 1991). However there is some evidence to show that significant working capital is needed for brewing and profits are small. Gay (1980:

155) presents a case study of the most successful brewer she found in her survey:

This is the largest amount of supplementary income (M48.50) earned by any woman in the sample, yet it amounts to only 14.4 percent of 'Mamoeno's household income for that month. Both the sale of beer to miners who were home for the football weekend and the sale of agricultural produce were made possible by the large amount of money which she had available to invest, by the level of homestead and agricultural development, and by the help and encouragement of supportive affines who were themselves successful farmers and local entrepreneurs. It was also made possible by the high level of spending on convenience foods and cooking fuel, which allowed her to sell some of her own agricultural produce, and freed her from the time-consuming tasks of grinding grain and collecting firewood and wild greens.

Thus, the poorest women are likely to be excluded from brewing, as they lack the finance to buy inputs and are restricted by the need to spend time on other household activities. This conclusion is supported by results from the survey.

The study also gave a picture of wage employment. Approximately 30% of currently employed women and 48% of currently employed men in farm-worker households could be considered as working in the enumerated sector,<sup>21</sup> with women earning an average of M7 per day. Work in the non-enumerated sector was more common, with this work being focused on domestic service and agricultural work. Domestic service accounted for a quarter of women's current employment. Wages for domestic work were low, averaging M4.59 per day (excluding payment in kind). Opportunities for waged farm work in Lesotho appeared more limited than in South Africa. Respondents also reported that they earned almost 20% less for farm work in Lesotho than in South Africa, with the average wage for harvesting in Lesotho being M4.63<sup>22</sup> per day compared to R5.55 in South Africa.

The reasons for poverty and participation in waged migrant farm labour appear clear. The women concerned have few alternative sources of income and rarely receive remittances from husbands or boyfriends. There is a general absence of men in these households and a high level of unemployment. At the same time, these households are generally unable to subsist without waged

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<sup>21</sup> The enumerated sector can be defined as the sector covered by official regulations and reported in official statistics. Given the debate over the term 'informal sector', the preference here is for the distinction between enumerated and non-enumerated employment. Work in this sector includes government waged and salaried work, as well as factory and retail employment in large industrial enterprises. However, it should be remembered that this survey was carried out prior to the boom in Lesotho's garment industry.

<sup>22</sup> Wages for local cattle herding were far lower, being on average R1.80 per day for adults and R1.51 for children.

work, as they have limited opportunities for farming on their own account or for non-agricultural self-employment. In this context, waged employment in either the enumerated or non-enumerated sectors is of crucial importance to the well-being of a household. This poverty of opportunities and resources makes migrant agricultural wage employment an important means to obtain an income.

However, this picture is not complete without a brief treatment of the rationale of South African farmers for employing migrants. In the area under study, high-value production has been established (focusing mostly on asparagus). Interviews with farmers and recruiters suggested that migrant labour was utilized not only because of its relative cheapness but also to increase employers' control over labour and to hinder the ability of workers to demand fair treatment. Farmers were able to enter into a temporary relationship with migrant workers and to restrict to a minimum the dues implicit in that relationship.<sup>23</sup> This occurred at a time when farmers were concerned that South African employees were achieving increasing rights, including possibly the right to land presently owned by the farmer.

## Conclusion

The information above gives an indication of the types of policies that would benefit this group of very poor households. If the poorest women depend on wage employment, what matters then is that policy aims to raise the wages of the poor relative to the price of food or other basic consumption goods. This may occur through an increase in wage employment opportunities in the agricultural or non-agricultural sector. Furthermore, it may occur through public policy – either in the form of public rural employment programmes or in changes in the protection afforded to poor workers. However, while the PRSP contains general enabling measures to encourage investment, it does not have specific aims in these two latter areas. Although not its current aim, the numerous infrastructure projects envisaged under the PRSP could fulfil the role of public employment generation if they are targeted correctly. Labour legislation to protect poor workers is also not a PRSP aim, although the PRSP does contain an aim to promote urban labour union development to deal with the growing

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<sup>23</sup> Farmers used the ethnicity of migrant workers to their advantage. Dormitories, work-teams and conveyer belts were organized on ethnic lines, with workers divided into Xhosa, Tswana and Sotho groups. On some farms, the Basotho were also separated from South African Sotho workers. The manipulation of ethnicity by employers may be regarded as a means of re-channelling labour disputes and thus reducing the ability of labour in a particular sector to organize or act autonomously. Mather (1991: 23) reached a similar conclusion in his study of vegetable farming in Mpumalanga. See also Rutherford (2001).



number of labour disputes in the garment sector. However, this activity is given no priority and is not budgeted for. This may not be surprising given that organized labour was left out of the PRSP process (DFIDSA-Lesotho 2004: 25).<sup>24</sup> Furthermore, the policy aim of achieving gender balance in recruitment (i.e. reducing the female share of the industrial workforce) must be treated with caution, since some of the very poorest households depend on female labour.

A particular issue for the poor households surveyed here is the ability to migrate in search of jobs. While the PRSP mentions the need for the speedy issue of travel documents, this is given the lowest ranking among priority policies and no budget is assigned to it. Clearly, to assist the very poor households discussed in this chapter, improving the ease of obtaining travel documents should be given higher priority. Furthermore, attention could be paid to the treatment by South Africa of legal and illegal migrant labour from Lesotho, and the rights of workers in the South African agricultural sector. This would require support for the Government of Lesotho to negotiate with South Africa, much as it currently receives support for trade negotiations.

Such initiatives would need support from parliament to pass the necessary legislation, but MPs were not significantly involved in the drafting of the PRSP. It was drafted over the period of the 2002 general elections, with parliamentary briefings being held during preparations for the elections. Cromwell *et al.* (2005: 18) argue more generally that a 'lack of attention to enabling measures, that often require legislation, may be both the cause and the consequence of the way in which parliaments and legislatures have usually played only a minor role in preparing the PRS'.

While the survey results give some guidance as to policy areas that would have a positive impact on a group of very poor households, they also indicate policy areas that may be of less use. For example, employment-creation policies prioritize support to small and medium-sized enterprises. However, such support is unlikely to benefit these households directly. Furthermore, agricultural support is also unlikely to benefit these households directly. Both initiatives would only be of assistance if they indirectly led to greater employment growth. The evidence also suggested that the provision of non-formal or vocational education, a priority under the education theme, would only be of use if it was

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<sup>24</sup> A review of trade-union participation in the PRSP process in 23 countries, including 10 Sub-Saharan African countries, concluded that: 'no union has reported being engaged in the drafting, implementation or monitoring and evaluation. In a number of cases, unions have attended meetings on the PRSP but have not been able to make responses due to late delivery of background material, lack of capacity to analyze and present alternative proposals or simply because they were invited to only one or two such sessions. They have variously classified such a process as "cosmetic", "symbolic" and "unsatisfactory"' (Egulu 2004: 10).

accompanied by the creation of employment opportunities, as the survey showed that a surprisingly high percentage of women had already obtained some vocational education but were unable to make use of it.

So this purposive study helps present a detailed picture of a particular group of poor households, and also gives an indication of useful poverty reduction policies for these households, policies that are different from the priority PRSP measures discussed above. The PRSP measures in contrast appear rather blunt, indirect ways of helping this group of the poor. Although this chapter focuses on only one group of the poor in Lesotho, some general points may be made as a result. The first is that when a large percentage of a population are defined as poor, it should be remembered that the poor are likely to be a heterogeneous group. The second is that the poverty should be seen as being produced by economic and social dynamics. The poor operate within markets, especially labour markets, and social structures; their prospects must be analyzed within these specific contexts.

What are the implications for PRSPs?<sup>25</sup> The discussion here shows that the focus in PRSP methodology on the prevalence of poverty using a headcount measure is unhelpful. Headcounts of poverty do not reveal the causes of poverty, nor do they inform policy makers as to appropriate poverty reduction measures. Instead, purposive surveys are needed to reveal the dynamics of poverty for different groups of poor households. Second, it is evident that without an understanding of the heterogeneous nature of the poor and causes of poverty, PRSPs are likely to be ineffective and potentially counterproductive.

## References

- Cobbe, J. 2004, *Lesotho: Will the Enclave Empty?* Migration Information Source, September 2004 (accessed at: <http://www.migrationinformation.org/Profiles/display.cfm?id=248#top>)
- Cromwell, E., C. Luttrell, A. Shepherd & S. Wiggins 2005, *Poverty Reduction Strategies and the Rural Productive Sectors: Insights from Malawi, Nicaragua and Vietnam*, London: Overseas Development Institute (ODI), Working Paper 258.
- DFIDSA-Lesotho 2004, *The Making of the Lesotho National Poverty Reduction Strategy: Embedding Key Lessons Learnt in Lesotho's PRSP*, Southern African Regional Poverty Network/Khalapa Development Agency.
- Egulu, L. 2004, *Trade Union Participation in the PRSP Process*, Washington, DC: World Bank, Human Development Network, Social Protection Unit, Social Protection Discussion Paper Series 0417.

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<sup>25</sup> There is a separate issue, outside of the scope of this chapter, about the degree to which better data or information would actually change policy decisions by governments and/or donors. For a classic text on this issue for Lesotho, see Ferguson (1990).

- FAO 2001, *Human Energy Requirements: Report of a Joint FAO/WHO/UNU Expert Consultation*, Rome: FAO, Food and Nutrition Technical Report Series 1.
- Ferguson, J. 1990, *The Anti-politics Machine: "Development", Depoliticization and Bureaucratic Power in Lesotho*. Cambridge: Cambridge University Press.
- Filmer, D. & L. Pritchett 1999, 'The Effect of Household Wealth on Educational Attainment: Evidence from 35 Countries', *Population and Development Review* 25 (1): 85-120.
- Gabbert, S. & H-P Weikard 2001, 'How Widespread is Undernourishment? A Critique of Measurement Methods and New Empirical Results', *Food Policy* 26 (3): 209-28.
- Gay J., D. Gill, T. Green, D. Hall, M. Mhlanga & M. Mohapi 1991, *Poverty in Lesotho: A Mapping Exercise*, Maseru: Sechaba Consultants.
- Gay, J.S. (1980), *Basotho Women's Options: A Study of Marital Careers in Rural Lesotho*, Cambridge: University of Cambridge, PhD Thesis.
- Gill, D. 1992, *Lesotho: A Gender Analysis*, Maseru: Sechaba Consultants.
- Government of Lesotho 1988, *Incomes, Expenditure and Consumption of Basotho Households*, Maseru: Bureau of Statistics, 2 vols.
- Government of Lesotho 1991, *The Situation of Women and Children in Lesotho, 1991*, Maseru: Government of Lesotho, Ministry of Planning & UNICEF.
- Green, M. & D. Hulme 2005, 'From Correlates and Characteristics to Causes: Thinking about Poverty from a Chronic Poverty Perspective', *World Development* 33 (6): 867-79.
- Hanmer, L., G. Pyatt & H. White (1996), *Poverty in Sub-Saharan Africa. What Can We Learn from the World Bank's Poverty Assessments?*, The Hague: Institute of Social Studies.
- IMF 2006, *Kingdom of Lesotho: Poverty Reduction Strategy Paper – Joint Staff Advisory Note*, Washington: IMF, IMF Country Report No. 06/149.
- Jodha, J.S. 1989, 'Social Science Research on Rural Change: Some Gaps', in: P. Bardhan (ed.), *Conversations between Economists and Anthropologists: Methodological Issues in Measuring Economic Change in Rural India*, Delhi: Oxford University Press, pp. 174-99.
- Johnston, D. 1997, *Migration and Poverty in Lesotho: A Case Study of Female Farm Labourers*, London: University of London, School of Oriental & African Studies, PhD Thesis.
- Karshenas, M. 2005, 'Economic Growth, Inequality and Poverty', The Hague: Institute of Social Studies, mimeo.
- Kingdom of Lesotho 1996, *Pathways Out of Poverty: An Action Plan for Lesotho*, Maseru: Ministry of Finance & Economic Planning.
- Kingdom of Lesotho 2004, *Poverty Reduction Strategy 2004/5-2006/7*. Maseru: Government of Lesotho.
- Lanjouw, P. & M. Ravallion 1995, 'Poverty and Household Size', *Economic Journal* 105: 1415-34.
- Mather, C. 1991, 'Power, Space and Collective Action on a Vegetable Farm in the Transvaal Lowveld', Johannesburg: University of Witwatersrand, History/Politics seminar, 16<sup>th</sup> May 1991), mimeo.
- May, J., D. Krige, M. Mochebelele, N. Mokitimi & B. Roberts 2001, *Towards a Poverty Monitoring System in Lesotho*, Maseru: UNDP Lesotho and Ministry of Development Planning.
- May, J., B. Roberts, G. Moqasa & I. Woolard 2002, *Poverty & Inequality in Lesotho*, University of Natal, CSDS, Working Paper no. 36.

- Murray, C. (1981) *Families Divided: The impact of Migrant Labour in Lesotho*, London: Cambridge University Press.
- Panos 2002, *Reducing Poverty: Is the World Bank's Strategy Working?* London: The Panos Institute, Report no 45.
- Pincus, J.R. 1993, *Class Power and Agrarian Change: A Case Study of Three Villages in West Java*, Cambridge: University of Cambridge, PhD Thesis.
- Ravallion, M. 2005, *Inequality is Bad for the Poor*, Washington, DC: World Bank, Development Policy Research Working Paper no. 3677.
- Roberts, B. 2003, 'Exploring the PRSP Process in Lesotho: Reflections on Process, Content, Public Finance, Donor Support and Capacity Need', Paper presented at Economic Commission for Africa, Third Meeting of the African Learning Group on the Poverty Reduction Strategy Papers, 3-4 December, Addis Ababa, Ethiopia.
- Rutherford, B. 2001, *Working on the Margins: Black Workers, White Farmers in Postcolonial Zimbabwe*, London: Zed Books.
- Sahn, D.E. & D.C. Stifel 1999, 'Poverty Comparisons over Time and across Countries in Africa', Ithaca, NY: Cornell University, Cornell Food and Nutrition Policy Programme, Working Paper 95 ([www.cornell.edu/cfnpp](http://www.cornell.edu/cfnpp)).
- Sender, J. 2002, 'The Struggle to Escape Poverty in South Africa: Results from a Purposive Survey', *Journal of Agrarian Change* 2 (1): 1-49.
- Sender, J. 2003, 'Rural Poverty and Gender: Analytical Frameworks and Policy Proposals', in: Ha-Joon Chang (ed.), *Rethinking Development Economics*, London: Anthem Press, pp. 401-20.
- Sender J., C. Cramer & C. Oya 2005, 'Unequal Prospects: Disparities in the Quantity and Quality of Labour Supply in Sub-Saharan Africa', Washington, DC: World Bank, Social Protection Discussion Paper no. 0525.
- Sender, J. & D. Johnston 1995, 'A Fuzzy Picture of Some Invisible Women'. London: University of London, School of Oriental and African Studies, SOAS Department of Economics Working Paper.
- Sender J. & S. Smith 1990, *Poverty, Class and Gender in Rural Africa: A Tanzanian Case Study*. London: Routledge.
- Sharp, J. & A. Spiegel 1990, 'Gender and the Control of Income in Farm and Bantustan Households', *Journal of Southern African Studies* 16 (3): 527-49.
- Showers, K.B. 1980, 'A Note on Women's Responses to Migrant Labour', *South African Labour Bulletin* 6 (4): 54-57.
- Spiegel, A.D. 1980, 'Rural Differentiation and the Diffusion of Migrant Labour Remittances in Lesotho', in: P. Mayer (ed.), *Black Villages in an Industrial Society*, Cape Town: Oxford University Press, pp. 109-68.
- Srinivasan, T.N. 2001, 'Comment on Counting the World's Poor', *World Bank Research Observer* 16 (2): 157-68.
- Svedberg, P. 1987, 'Undernutrition in Sub-Saharan Africa: A Critical Assessment of the Evidence', Helsinki: World Institute for Development Economics Research (WIDER), Working Paper No. 15.
- Székely, M., N. Lustig, M. Cumpa & J.A. Mejia 2000, 'Do We Know How Much Poverty There Is?', Washington, DC: Inter-American Development Bank, Working Paper no. 437.
- Ulicki, T. & J. Crush 2000, 'Gender, Farm Work and Women's Migration from Lesotho to the New South Africa', *Canadian Journal of African Studies* 34 (1): 64-79.

Wright, C. 1993, 'Unemployment, Migration and Changing Gender Relations in Lesotho', Leeds: University of Leeds, PhD Thesis.

## Why De Soto's ideas might triumph everywhere but in Kenya: A review of land-tenure policies among Maasai pastoralists

Marcel Rutten

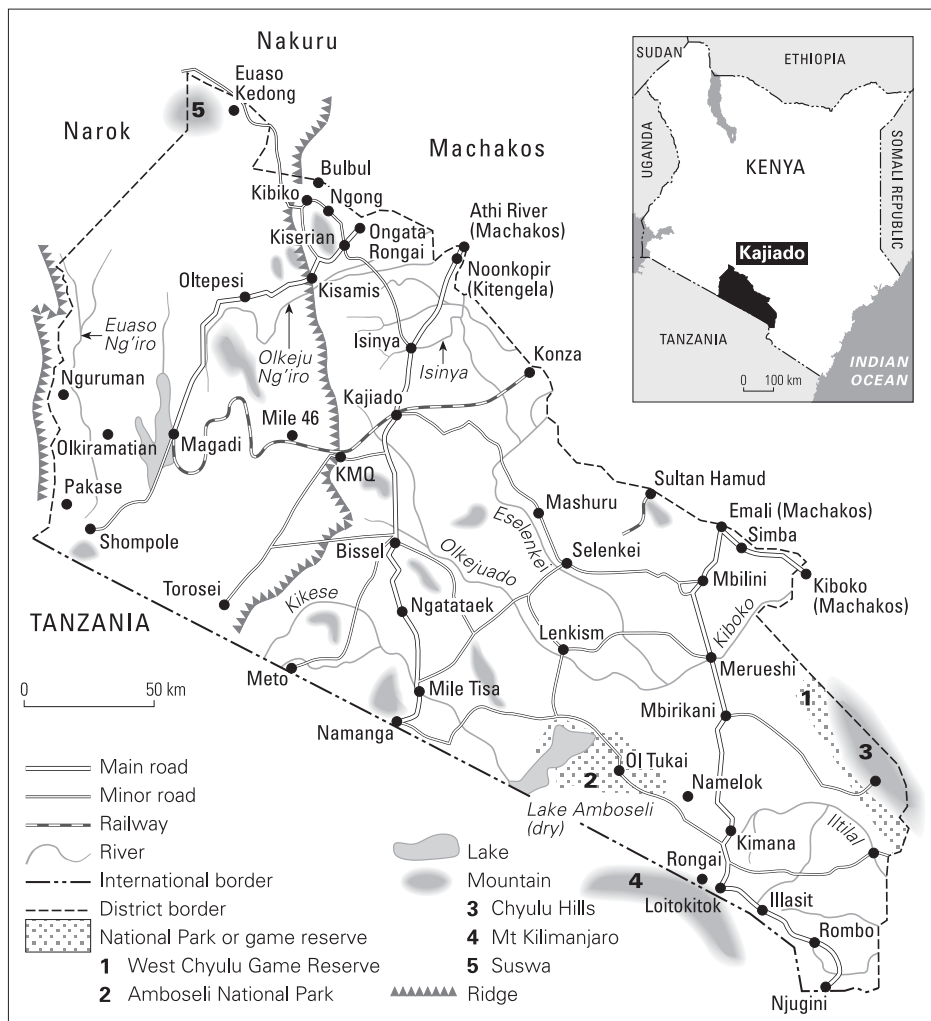
*A lack of easily understandable, formal property rights, Peruvian scholar Hernando De Soto argues, explains why people in developing countries have not been able to transform their (natural) resources into productive capital. His claim has been welcomed by national and international policy-makers struggling to improve developing countries' economies over the last fifty years. This chapter is based on longitudinal research carried out among Maasai pastoralists in Kajiado District, Kenya since the late 1980s. The findings seriously question De Soto's claims that formalized property rights will result in investments, the sustainable use of resources and, ultimately, wealth creation. By contrast, the opposite effect might be the rule in cases where key conditions such as reasonable interest rates, the trustworthiness of the land register, a friendly natural environment and security are not met, resulting in serious poverty for former property holders.*

### Introduction

The evolution of landownership in the Maasai area of Kenya is presented chronologically in this chapter in four major periods starting from when the Maasai were confronted with the arrival of British colonizers who introduced formal land tenure in Kenya. As a result of this, Maasai pastoralists lost their best grazing areas, a move that is challenged to this day. The creation of a specific reserve for the exclusive use of the Maasai, however, still allowed them

to exercise their customary land regulations. New land-use experiments, albeit on a limited scale, were introduced from the late 1940s onwards and grazing experiments were added in the 1950s.

Individual land tenure was slowly introduced in the 1950s, a process that was halted in the late 1960s when formal land rights in the form of group ranches, i.e. land held under private title by a group of families, were introduced. In the second half of this chapter, the effects of the subdivision of these group ranches into individual holdings are assessed.



Map 4.1 Kajiado District

## The Maasai and land: A historical review 1890-1980

### *The arrival of Europeans and the formation of Maasai reserves: 1890-1920*

From the mid-nineteenth century onwards, neighbouring agricultural (Kikuyu, Kamba) and pastoral (Pokot, Turkana) groups made inroads into a vast area of some 160,000 km<sup>2</sup> which had once been firmly controlled by the pastoral Maasai. Approximately 60,000-70,000 km<sup>2</sup> of this territory used to be located in present-day Kenya. The arrival of British colonizers resulted in an accelerated loss of pasture. In 1895 the Maasai population was split in two after a straight boundary was drawn from the Indian Ocean Coast to Lake Victoria in the interior. This led to the creation of Tanganyika, which was governed by the Germans, and the East African Protectorate and the Ugandan Protectorate, both in the hands of the British. Settlers were encouraged to come to the East Africa Protectorate with offers of large tracts of land (up to 10,000 acres) at extremely low prices. During the early years of the Protectorate the land issue was an important topic of debate. The local administration was in a hurry to attract as many white settlers as possible and this called for a settler-friendly land policy and legislation. The first legislative regulations concerning land were issued in 1897 offering Certificates of Occupation with a renewable 21-year term, but this prohibited the buying and selling of land. Pressure from the settlers supported by the local administration at the Foreign Office demanded that freehold titles continued. In 1902, the First Crown Lands Ordinance allowed the local administration to issue settlers with 99-year leases and the possibility of selling land at plot sizes of up to 1,000 acres. Bigger tracts were also obtainable but only after consultation with the Foreign Office. The Ordinance proclaimed that all public land (i.e. unoccupied land) was Crown Land which, for the time being, was subject to the control of His Majesty by virtue of any treaty, convention or agreement. However, the decision as to whether land was vacant or not was in the hands of the Commissioner and his subordinates.

African land rights were overruled and violated in every respect. The high-potential areas north of Nairobi became ultimately known as the White Highlands. In 1904 the Maasai lost some 35-40% of their land after they signed a treaty with the British that divided Maasai territory into a northern and southern reserve totalling some 24,000 km<sup>2</sup>. In 1911 the Second Maasai Treaty was signed, making it possible to remove the Maasai from the north to an extended southern reserve that would then total over 36,000 km<sup>2</sup>. The Maasai were very bitter about being removed from their northern grazing pastures.

### *The period of neglect: 1921-1944*

In 1923, the Colonial Office published a White Paper that denied responsible government to the settlers and stated that Kenya was primarily an African



territory and that the interests of the African population should be paramount. This declaration turned out to be just words and the land policy was left unchanged. The Native Lands Trust Ordinance of 1930, however, stated that non-natives could only obtain leases or one-year licences for lands in the reserves if they were not occupied or required by Africans. A Central Trust Board and Local Land Boards were set up to control land issues. They could object to a lease or licence but the Secretary of State had the power to overrule them.

Estimates in 1930 of the number of Kenyan Maasai and their livestock totalled some 48,400 people, 720,000 cattle and 820,000 shoats in a Maasai reserve. This was split into two districts: Narok to the west and Kajiado to the east, comprising some 39,000 km<sup>2</sup> in total (Carter 1934, minute 658). This meant an average availability of land of some 80 ha per person, while livestock numbers stood at 74 cattle, 85 sheep and goats and 18 donkeys. Other estimates put the number of livestock at one million head of cattle. These ownership figures made the Maasai fully self-sufficient pastoralists. The size of their herds stayed within the potential carrying capacity of the reserve but this would have been lower due to the huge numbers of animals sharing Maasai pastures at that time. Also, some localities within the reserve were heavily infested with tsetse flies and/or lacked sufficient water. This was (partly) the result of the Maasai Treaties and the consequent loss of watering points to the benefit of white settlers along the Maasai reserve's northern boundary. Approximately 40% of the reserve's land was, consequently, considered to be useless or, at best, of low value. In addition, agricultural groups like the Kikuyu, the Kamba and the Chagga looked with envy at Kajiado District, in particular at the slopes of the Ngong Hills, the Ol Doinyo Orok near Namanga and Mt. Kilimanjaro as areas suitable for cultivation.<sup>1</sup> A special permit was, however, required to enter the Maasai reserve.

The Maasai repeatedly protested the loss of their land to the Kenya (or Carter) Land Commission, which was set up in 1932 to review African land grievances. The final report of the Kenya Land Commission reaffirmed the administration's policy towards pastoralists by opposing any extension of their land. In fact, the Commission, which had not given serious consideration to Maasai grievances, blamed them for having so much land to the detriment of Europeans and other African groups.<sup>2</sup> Following the recommendations of the

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<sup>1</sup> In a quantitative sense, the Maasai lost more land than any other group as a result of the arrival of the Europeans but these other groups, the Kikuyu in particular, suffered more from being restricted to a reserve that was too small.

<sup>2</sup> The Carter Commission (1934: 7) stated 'When we turn from the interests of the Masai and consider the interests of other tribes, it is clear that the permanent entail of a vast area of land for the benefit of a tribe which makes very little use of it and, left

Carter Commission, Maasai Province was renamed the Maasai Extra Provincial District in 1933. It totalled 39,291 km<sup>2</sup> and Kajiado District amounted to almost 22,000 km<sup>2</sup>. Other recommendations by the Carter Commission resulted in the proclamation of new land legislation by way of the Native Lands Trust Ordinance in 1938 and the Kenya (Native Areas) Order in Council in 1939. The Crown Lands (Amendment) Ordinance of 1938 defined the various categories of land: 'Native' instead of 'Crown' Land in the case of the original reserves; Temporary Native Reserves; and Native Leasehold Areas (see Sorrenson 1965: 689).<sup>3</sup>

*Grazing scheme experiments in land management and development:  
1945-1963*

After the Second World War, African protests grew louder and ultimately resulted in a struggle for freedom.<sup>4</sup> Winds of change had also swept through British colonial policy, resulting in less sympathy for the dominance of Kenyan

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to itself, would certainly not be able to keep it, must appear unjust, especially when one, at least, of the neighbouring tribes is living in a state which borders on congestion. Nobody wishes to deprive the Masai of their land, but justification might arise for requiring them to lease unused portions of it to other tribes or to individual natives.'

<sup>3</sup> While making these new land-tenure regulations, the Kenyan authorities started to study the problems of Native Land Tenure in more detail. Several memoranda were circulating within Kenya as well as to and from Downing Street. Lord Hailey's Committee on African Land Tenure enunciated the problem as follows: '(...) how to ensure to guard against the harmful consequences of the growth of individual rights in land, while at the same time not impeding the developments of such rights, under proper control by the community, to the extent that they are an essential concomitant of economic or social progress' (see KNA/PC/NGO/1/3/14). District commissioners were requested to submit information about recent developments in land-tenure arrangements. The District Commissioners from Kajiado and Narok reported that there was no land hunger by individuals in their districts and that disagreements were being well handled by local elders. The problems of native land tenure were mainly applicable to agricultural groups and the only form of individual land rights was through the *ol-okeri*, an area set aside for a family's herds to graze. These are mainly located in dry-season grazing areas and obtained by customary grazing patterns. They lack fences and even clear boundaries.

<sup>4</sup> As real (economic) improvements were not occurring and were repeatedly slowed down by the Europeans, a radicalization of African, mainly Kikuyu, politics occurred. This eventually escalated towards an armed struggle between the so-called Mau Mau movement and the colonial government. In October 1952, a state of emergency was declared that lasted until June 1959. The Mau Mau did not spread to the rest of the territory, except among the Embu and Meru and to some extent the Kamba, although the presence of troops and the enforcement of emergency measures certainly affected the overall political climate.

affairs by settlers. African groups began to gain influence in the national parliament and economic reform programmes were proposed for the African reserves, including the rangelands.<sup>5</sup> Attention was also given to the question of land consolidation and the change of land tenure in zones of high potential. In 1945 Senior District Commissioner Lambert wrote a memorandum on the topic of land-tenure policy in the native lands of Kenya, recommending the acceptance of an interim policy of individual rights subject to community control. The indigenous system of control needed to be preserved, recognized and used. Still this should not be regarded as the final stage in the evolution of the African system of land tenure in Kenya (see KNA/PC/NGO/1/3/14).<sup>6</sup> In reply, officers from Samburu and Maasailand stated that Lambert's memorandum had particular reference to agricultural and overcrowded areas. In pastoral areas, the DC Laikipia stated, the problems of preventing the misuse of land arose from the complete lack of individualism. Control of the use of land would not be possible unless the pastoral districts were subdivided with utmost tact and wisdom. Lambert felt that local land authorities should be established, building on traditional institutions, to act as the managing board for each subdivision. The size of the subdivisions should be in the order of a subdivision of major sections into clans, for example, and should be still sizeable areas because history had shown that most of the settler-owned ranches created in the former northern reserve in Laikipia were too small. Some 250-300 farms of 3,500-4,000 acres each were surveyed after the Maasai had left. In the following 25 years, it became clear that 'successful ranching on these restricted areas is impossible (...) In fact, almost every farmer in the area habitually hires outside grazing.' (KNA/PC/NGO/1/3/14).

The DCs of both Kajiado and Narok opposed Lambert's view that many Kikuyu immigrants had been assimilated in Maasai society. Instead, they stated that the colonial government had encouraged and authorized the Kikuyu to enter, contrary to Maasai wishes, and allowed them to 'grab land, destroy forests and consider themselves outside both the laws of their own tribe and certainly of the Masai' (KNA/PC/NGO/1/3/14). This might mean, they argued,

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<sup>5</sup> 'Since the alternative to increased productivity could only be the expansion of the African Areas – the most obvious area of expansion being the Highlands – it was politically as well as economically important for soil conservation to succeed' (Gordon 1979: 103).

<sup>6</sup> In Laikipia in 1945, eight 'big' farmers held 406,000 acres, an average of 50,000 acres; 87 'small' farmers had 577,000 acres, with an average of 6,000-7,000 acres. Most of the small farmers were continually in difficulties. At a conservative estimate, it seems that the original subdivision of the area provided about three times more farms than the land and climate warranted (see KNA/PC/NGO/1/3/14).

that local land authorities were not powerful enough to control the use of the land.

In spite of Lambert's ideas on using indigenous systems of land control, the British administration thought that traditional grazing control among the Maasai in their semi-arid areas had been inadequate and become even more difficult to implement with the abolition of section boundaries that allowed free grazing for Maasai pastoralists throughout the whole of Maasailand, as had been decided by their Joint Local Native Councils of Narok and Kajiado Districts in June 1946. This decision conflicted with the British aim of implementing a grazing control plan for each Maasai section by restricting the movement of stock from one section to another so as to enforce an economic limit within the boundaries of each section. So far the Maasai had only agreed to allow a specific number of animals in the vicinity of a borehole. If this number was exceeded, the borehole would be closed to allow the area time to rest. In the first half of the 1950s, cooperation between the different *il-oshon* was excellent. The above-average rainfall of the 1950s resulted in an abundance of grass and water throughout the district and this reduced the tensions between several sections. The Maasai cooperated with the colonial administration by accepting more comprehensive grazing control measures.

To guide this process, it was decided to phase in a programme. Firstly, a selection was made of a limited number of stock owners who were allowed to water their cattle at each borehole. A maximum of 2,000 cattle were permitted around any one borehole. Secondly 'with the number of stock using the boreholes limited and with the owners paying for the privilege of use by subscribing to a renewals fund, each area served by a borehole should, with guidance and control, eventually become a form of ranch unit' (KDAR 1952: 1). A few years earlier the Maasai had already agreed to a ranching experiment near Konza.<sup>7</sup>

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<sup>7</sup> In 1949, the pilot Konza grazing scheme went ahead with 12 selected families joining the scheme, bringing with them approximately 1,285 head of cattle that had been quarantined. The fenced 36 square-mile area was divided into four paddocks of nine square miles each. Two boreholes and a cattle dip were installed and a manager and a veterinary assistant were posted to Konza. The scheme proved to be an unqualified success in a year in which Kajiado District experienced both drought and rinderpest. The only problem seemed to be maintaining fences which game broke in several places. The abundant rains of 1951 suddenly transformed the district into a land of plenty and made the Maasai less receptive to propaganda concerning the planned development of their land based on a reduction of stock and controlled ranching. In addition, it became clear that the better condition of the Konza stock in a favourable year had only been due to dipping. Grazing management, which included fencing and other costly measures or restrictions, did not therefore seem to be as necessary as had been propagated. By mid-1961 all the residents had left the scheme and the area was closed for grazing. The Konza Ranch would not open again. The scheme was sub-

The idea of communal landownership had been dropped unofficially as early as 1950 by the Department of Agriculture. Neither the Land Bank nor the commercial banks were interested in lending money to African farmers without individual security provided by way of a land title. Traditional land tenure had to be removed as it was considered to block the intensification of African agriculture. In future, the creation of a landless class was predicted but considered a normal step in a country's evolution. Together with a lifting of the ban on African farmers growing cash crops, the provision of security of tenure, technical assistance, water improvement, agricultural education, and credit and marketing facilities, the incomes and standards of living of the people would be raised, while at the same time a substantial increase in the colony's resources and economy would take place.

By late 1952, drought resulted in the death of a considerable proportion of the Maasai's stock, which ultimately changed the objective of dividing the district into ranch units. 'Further investigation has shown that whereas this may, in conjunction with heavy stock reduction, be feasible in the Kaputiei Section south of the Mombasa railway line, a large area of the district is, by reason of climatic and geological conditions, unsuitable for a static form of ranching' (KDAR 1953: 1).

However, the 1954 Plan to Intensify the Development of African Agriculture in Kenya by the assistant director for agriculture R.J.M. Swynnerton claimed that the Maasai areas in particular were the only remaining regions to settle as any land naturally suited to settlement had already been occupied (Swynnerton 1955: 7). The British government eventually provided £16 million for a five-year programme of land consolidation and registration. The activities and finances of the African Land Development Programme (ALDEV) were integrated into the Swynnerton Plan. The main concern remained the limitation of stock numbers as it was thought that no satisfactory development could be achieved without this. Disease control had the lowest priority, marketing and grazing management the highest. Field abattoirs, grazing schemes based on groups using a certain borehole, the setting-up of school farms and pasture research were the major means introduced to reach higher productivity.

Grazing schemes were established with funds released through ALDEV. 'More than £43,000 [of the £800,000 available for the whole of Kenya] has been spent in the Kajiado district on grazing scheme development since 1947, much of which has been raised by the Masai through self-tax levies' (Fallon 1962: 22).<sup>8</sup>

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divided into eight individual ranches of various sizes in 1964.

<sup>8</sup> The Masai African District Council (Grazing Control) By-Laws, 1955 conferred broad powers upon the livestock officer in charge of a scheme, including the deter-

The first scheme was established in the Kisonko area in the eastern part of Kajiado District in 1954 and included three traditional clan areas, making a total of 5,265 km<sup>2</sup>. ALDEV set aside £25,000, of which £10,000 was a loan. Grazing principles were based on the traditional use of the area which was then extended by means of strict grazing controls enforced on a clan basis by grazing committees. These committees made detailed plans for the use of several areas as soon as the wet season started. The prolonged drought in 1956 was a difficult challenge for the committees, and areas that it was agreed would be rested for a year or even longer had to be reopened to grazing due to the force of circumstance and public opinion. Also the administration fully realized that 'owing to the vagaries of the rains it cannot be expected that an even pattern for grazing control will ever be achieved in Il Kisongo' (KDAR 1957: 16). This was proved in 1959 when any controls had to be abandoned as cattle in the scheme had to go far afield in search of grazing, even trespassing in Taveta, Tsavo and Tanganyika.

Other schemes started in the 1950s were the Matapato Grazing Scheme (1957, 880,000 acres, £4,956 grant) and the Loodokilani Sectional Scheme (1959, 1,920,000 acres, £3,639 grant). Both got off to a bad start due to drought and a lack of officials. The Konza grazing experiment and other surveys had made it clear before the introduction of the grazing schemes that the idea of dividing the district into a specific number of ranches was unsound from an ecological point of view.

By 1960, all the Maasai sections had applied for better water supply schemes such as rock catchments, dams and sub-surface dams. Government officials, however, combined their possible approval of such schemes with the requirements of grazing controls. Nonetheless, it should be realized that

'(...) much of the incentive for these new schemes was political in nature. Sensing the winds of change that would sweep independent African governments into power in a few years time (...) most of the schemes initiated in Maasailand during the 1950s were hastily conceived, poorly designed, improperly implemented, and, above all, essentially planned for rather with them. There generally was no provision in the plans for innovations in human organizations to accompany the introduction of new technology and grazing techniques. (...) And not surprisingly, virtually all of these schemes failed within a few years.' (Jacobs 1980: 294)

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mination of those approved to graze livestock in the scheme, the number of animals each was to be allowed to graze, and the area to be grazed (see Fallon 1962: 25). These rules allowed the levying of fines up to Ksh 1,000 and/or six months' imprisonment. However, when setting up the scheme, it was agreed that cooperation would be on a voluntary basis and without recourse to the imposition of grazing fees for individual cattle. As with Konza, the alternative would have been to have had no scheme at all.

Indeed by the end of 1961, the Kisonko Scheme had been suspended and was never reactivated. Local-level Maasai politicians in Kajiado District had been acquiring large individual ranches without the legal means to do so since 1954. Support for these individuals was, however, provided by the Local County Council, not infrequently because of private interests. It was this link between local councils that made Lambert state that land should be controlled by an independent Land Control Board based on indigenous structures.<sup>9</sup>

Colonial administrators expressed their concerns but did not actively oppose this development. Two thousand acres was the maximum allowed for every individual ranch and, by 1959, interest in individual ranching had increased. However, in 1960 the authorities concluded that 'There will obviously have to be some re-planning with regard to ranches. Few of the applicants have the desire or the capital to make any serious attempt to ranch' (KDAR 1960: 20).<sup>10</sup>

Nonetheless by 1960 grazing schemes, individual ranchers and non-incorporated Maasai were suffering alike from the severe drought.<sup>11</sup> The drought did not stop other, mostly young, educated Kaputiei Maasai from obtaining indi-

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<sup>9</sup> The Reverend Daudi Mokinyo, a progressively minded Maasai who had been working at the Ngong Veterinary Station, got permission from the Loodokilani section to start his own individual 4,000-acre ranch, keeping cattle along modern lines under the strict supervision of the Veterinary Department. A loan of £1,000 was obtained to install a borehole and a hand pump and for the acquisition of an improved bull from the Ngong Livestock Improvement Centre. However, water could not be found and an alternative ranch of 2,000 acres was offered in 1956. Water was then found. Mokinyo bought six more breeding animals and put up a thorn barricade round the perimeter. Other applications near Kajiado Town followed for three other ranchers.

<sup>10</sup> Whatever the main reason for purchasing an individual ranch, one needed to be wealthy to develop it. It was essential to have an area with good grazing, trees and water, to fence it properly and put something back into the soil. It was estimated that at least £10,000 (or the sale of approximately 1,000 cattle) per ranch would be required to make anything of the ranches near Kajiado. Reverend Daudi Mokinyo had difficulty in meeting his loan repayments at an interest rate of 6.5% per annum. Fallon (1962: 28) writes: 'I am unable to see how the settlers can meet high interest rate – short term loan requirements. (...) There appears to be little likelihood of success for the ranching program unless long term loans with low interest rates (2 to 3% per annum) can be made available for necessary ranch and farm developments and livestock purchases (...) Individual ownership or control should be encouraged. It must be remembered, however, that individual ownership alone can not guarantee proper land use.'

<sup>11</sup> The Annual Report of 1960 reveals how Reverend Mokinyo was able to meet the terms of his loan. 'The Rev Daudi Mokinyo has not made much progress but he is making a living though he tends to depend on charcoal burning and [the] sale of zebra skins to make ends meet. The former is to be discouraged if he does not replace each tree cut down. He also wishes to open a butchery in Kajiado and a shop on his ranch' (KDAR 1960: 21).

vidual ranches. Initially it was the Kaputiei Development Committee that proposed registering the Kaputiei area under one title deed in the possession of the Kaputiei section. This idea was not accepted by the authorities as it would not stimulate commercial changes. It seems as if the Kaputiei region in general and the high-potential Ngong area in particular were thought to be suitable for commercial ranching purposes with the prerequisite individual or cooperative forms of land tenure. Advice given by various researchers such as Jacobs, Heady and Fallon in the early 1960s, however, pointed to the risk of subdivision leading to unviable small units. But in the high-potential Ngong area, the phenomenon of individual landownership expanded rapidly. A programme of land consolidation to enable the division of the area into individual ranches was set up in the Ngong area in 1961. This development, though opposed by the elders, was favoured by young, educated Kaputiei and backed by Kajiado County Council.

Several authors (Hedlund 1971 and 1979, Muranja 1973/74, Peron 1984) mentioned a number of reasons for the acceptance and growth of individual landownership in the Kaputiei region: the formation of a buffer of individual ranches on the fringes of the Maasai area to stop illegal intrusion; the strong position of young influential Kaputiei politicians who created a political clientele by handing out title deeds to supporters and tried to reduce the social and economic dominance exerted by the elders; the wish to settle down and start commercial enterprises as shown by neighbouring groups; and the group of Kikuyu-Maasai who had been accommodating their landless brothers from Kikuyu land and strongly supported the land consolidation programme. By 1963 there were about 24 individual ranches in the district.

The land resource base available for Maasai livestock herding started to dwindle as more agriculturalists started to infiltrate and occupy the high-potential dry-season grazing pastures. When the state of emergency ended in 1959, administrative action had to be taken to control the huge influx of Kikuyu into the Ngong area. In 1960 1,200 acres were surveyed and distributed to twenty Maasai farmers. Pressure came from the Kaputiei to start land consolidation along the lines of individual ownership, a development warmly welcomed by the Kikuyu, who 'had learned through experience that once land is consolidated and land titles issued it was possible to carry out land transactions through the instituted Land Boards' (Muranja 1973/74: 58).<sup>12</sup> The establishment of the Amboseli Game Reserve and Nairobi National Park, partly in response to

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<sup>12</sup> Supported by a £3,000 ALDEV grant, land consolidation began in Ngong in August 1961. In the same year Ngong was gazetted under the Land Registration (Special Areas) Ordinance, a measure taken to prevent people from outside the area coming to claim land. The 1962 population census of Kajiado District showed 53,219 Maasai and 15,192 non-Maasai (of which 6,233 were Kikuyu) living in the Ngong region.



an international conservationist lobby, put a further strain on the availability of land for livestock.<sup>13</sup>

With negotiations beginning at the 1961 Lancaster House Conference to hand over power to the African population in an independent Kenya, the Maasai feared an influx of outsiders after independence would end the Maasai Treaties of 1904 and 1911 that gave them the exclusive right to occupy Kajiado and Narok Districts.<sup>14</sup> The Maasai went as far as to request the United Nations recognize a unified Maasailand comprised of Tanzanian and Kenyan Maasai. This proposal was as much condemned to fail as the Maasai request to the British Government to hand back the former White Highlands. A £5,800,000 claim to be paid by the British as compensation for the use of Maasailand since 1904 was also rejected. At the Lancaster House Conference as the first President of the Republic of Kenya, Jomo Kenyatta, expressed the view that 'There should be freedom of movement in the Kenya of the future and the people should not be insulated by tribes' (RBC 1962: 45).

*The formation of group ranches: 1963-1980*

Discussions concerning the status of Maasailand reached a peak in the early 1960s. Among the Kaputiei Maasai in particular, the land-tenure debate was significant. A wide variety of propositions, such as the registration of the section under one title deed or the creation of a fringe of individual ranches near the northern boundary to stop illegal infiltration, were discussed. The colonial authorities disagreed with the one-title deed option. Young, formally educated Maasai supported by the Kajiado County Council suggested the idea of individual ranches, although elderly Maasai opposed the move to individualization. Support for the latter came from the Lawrance Mission of 1965 that criticized the government's haphazard approach to the Maasai land question and the illegal approval of the creation of individual ranches. In the end, all the Maasai

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<sup>13</sup> In December 1946, Nairobi National Park (117 km<sup>2</sup>) was officially opened and the Maasai lost total access to it. In 1947 the 3,260 km<sup>2</sup> Amboseli National Reserve was created, the boundaries of which were arbitrary and did not prohibit Maasai movement. In 1958 a first agreement was reached whereby the Maasai could restrict human beings and cattle numbers from 20,000 to 7,000 head of cattle only. In 1961 the Amboseli administration was handed over to the Kajiado County Council and soon afterwards, it set aside a 78-km<sup>2</sup> stock-free area (see Western 1982: 304). Amboseli National Reserve was renamed Masai Amboseli Game Reserve.

<sup>14</sup> African representatives from Nyanza and Nyeri, both densely populated areas, had protested as early as 1959 against the closed status of Maasai districts and had called for the integration of the land and all ethnic groups in Kenya. 'It was wrong to talk in terms of Masailand. "it is African land, Kenya land"' (EAS 05/09/59). Their appeal was not successful and it was the late 1960s before the status of closed district was withdrawn.

sections accepted the group ranch concept in 1969, which was introduced by the Kenya Livestock Development Project and sponsored by the World Bank.<sup>15</sup>

In short, the idea of a group ranch meant the setting aside of a certain piece of land to be communally owned by a group of people who were recorded and registered as the legal owners through membership of the particular ranch. Unlike in the past, livestock movements would be restricted within the group ranch's specific boundaries and non-members would not be allowed to bring their animals to graze there. Through the provision of loans for infrastructural development and steer fattening, an attempt was made to radically transform the nomadic subsistence-oriented production of the Maasai pastoralists into a sedentary, more commercial system. This market-oriented production was to bring about a de-stocking of Maasai pastures while at the same time providing meat for the national and international markets.

Besides welcoming the idea of water provision, veterinary care, improved livestock breeds and the like, a major rationale for accepting the group ranch proposal was an increase in the number of Maasai acquiring individual ranches and fears of the encroachment of non-Maasai into the district. The concern that even more land could be lost to game reserves or national parks also played a role.<sup>16</sup>

The performance of the Kajiado group ranches has been followed closely by scholars and review missions. The introduction of these group ranches had organizational, juridical and economic consequences and the ranches were effective in stopping an educated elite of Maasai allocating themselves huge chunks of former communal land that had been set aside as individual ranches. Likewise, the feared massive influx of non-Maasai was avoided.<sup>17</sup> Only land from individual ranchers could be acquired, as in the Ngong and Loitokitok areas.

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<sup>15</sup> In some regions of northern Kaputiei and the better-watered parts of the Ngong area, individualization was preferred and opposition to the formation of group ranches persisted. These ranches, although officially registered, never functioned as group ranches.

<sup>16</sup> The pilot Poka group ranch started in the south Kaputiei location in 1964 and in 1969 Phase One of the Kenya Livestock Development Project (KLDP I) began officially. By 1970, 14 group ranches, covering more than 10% of the district were recorded in the Kaputiei area. KLDP II, which started in late 1974, added 16 ranches comprising another 25% of Kajiado District. And, by 1980, a further 20 ranches had been incorporated. These are often referred to as 'Phase Three group ranches' but no World Bank funding was provided for them. This brought to 51 the total number of group ranches covering 15,200 km<sup>2</sup> or some 75% of Kajiado District.

<sup>17</sup> By the late 1960s the status of closed district was removed. From then onwards, non-Maasai, who were well represented at national level, were able to enter the Maasai districts much more easily. The installing of group ranches, however, prevented outsiders from buying land legally.

Secondly, the group ranches initiated livestock management techniques and the construction of facilities such as boreholes, dams, troughs, tanks, pipelines and cattle dips. Thirdly, group ranches stimulated the building of schools, shops and health centres. A final achievement of such group ranch development is said to have been to allow wildlife to continue roaming freely over large parts of the district.

In addition to these accomplishments, several scholars mentioned problems and failures including delays in project implementation; disappointing rates of investment and difficulties in loan repayments; a continued trespassing of group ranch boundaries; refusals to de-stock ranches; no real transformation to a market-oriented livestock production; and corruption among ranch committees.

Overall it can be concluded that in many respects, the group ranch concept, as proposed by outsiders, was an artificial creation that lacked a firm traditional, sociological as well as ecological basis. The implementation of this change in land tenure was over-ambitious in aiming at de-stocking pastures and commercializing production while barely taking into account pastoralist strategies and household needs. The final outcome of these problems and the resulting frustrations was a growing desire among many Maasai for the subdivision of the group ranch into individually owned shares.

### The dissolution of group ranches and the individualization of landownership

In the early 1980s no clear position was taken by the government in response to the call for the subdivision of group ranches – apparently because the administration itself had some doubts about it and the individual departments were in dispute with each other.

Supporters of group ranch subdivision said it would help self-advancement and raise standards of living, boost the ability to procure a loan using the freehold title deed as collateral, minimize the exploitation of the poor by rich households, promote Maasai engagement in agricultural and industrial enterprises, and facilitate better maintenance of the existing infrastructure. In general, those opposing subdivision claimed that the ultimate result would be the alienation of land to the non-Maasai, severe erosion in areas where cultivation was to start, the loss of Maasai culture, and the restriction of the movement of wildlife and livestock to the detriment of the district's meat-producing and tourist functions.

All these arguments have been studied by the author among a group of 500 Maasai households but we will restrict ourselves here to a review of the monetary and juridical effects of the individualization of landownership: the buying, selling and mortgaging of land. The threat and actual sale of land has been the

most highly debated topic in Kajiado District (see, for example, Pasha 1986, Tobiko 1989, Dietz & Rutten 1990, Rutten 1992, Kimani & Pickard 1998, Ntiati 2002).

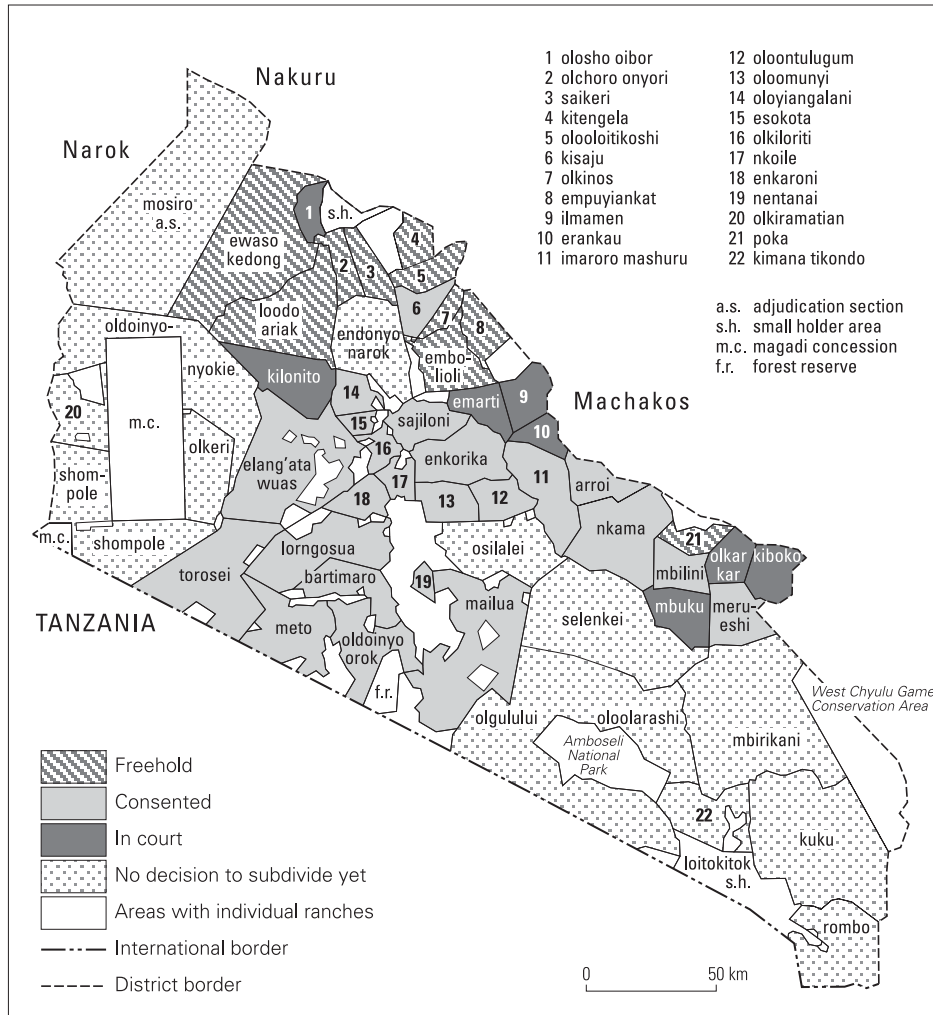
By 1990, a total of 40 group ranches had decided to dissolve their ranches. Seven had already gone through the procedure and the members had obtained private titles (Olkinos, Embolioi, Kitengela, Empuyiankat, Poka, Saikeri, Olchoro-Onyori). Only four ranches opposed the idea of subdivision, while another seven had not yet made a decision. In other words, 78% of the ranches had at that time ceased to exist or were about to. Alongside this process, a whole range of other difficulties arose, including disputes over ranch boundaries, corruption in plot allocation and conflicts between registered and non-registered group members. In 1998 more ranches indicated their willingness to subdivide and took steps to formalize the process of obtaining freehold titles. However, the number of ranches that had run into dispute and whose cases subsequently went to court had increased significantly (see Maps 4.2a & 4.2b).

The following section looks in particular at the post-subdivision developments that occurred on Olkinos and Meto group ranches from late 1986 until the beginning of 2000. Table 4.1 shows a major difference in household size between the Kaputiei Maasai of Olkinos and the Matapato Maasai of Meto. This is partly the result of the Kaputiei Maasai having seen an influx of Kikuyu and Kamba wives and adapting to smaller households with a nuclear household orientation than their more traditional counterparts in the south. Also, over the years, the trend in the Maasai area has been a reduction in the size of households. Further analysis is needed to establish the reason for the increase in household size in Meto. Possibly, the loss of cattle in the Meto region in 2000 forced family members to stay together and combine activities to recover from the drought.

*Table 4.1* Population characteristics of Olkinos and Meto study area sample, 1990 and 2000

	1990	2000
OLKINOS	N = 108	N = 45
Total household members	649	213
Ratio male:female	1: 0.96	1: 0.81
Average household size	6.0	4.8
METO	N = 104	N = 41
Total household members	1106	537
Ratio male:female	1: 0.96	1: 0.96
Average household size	10.6	13.1

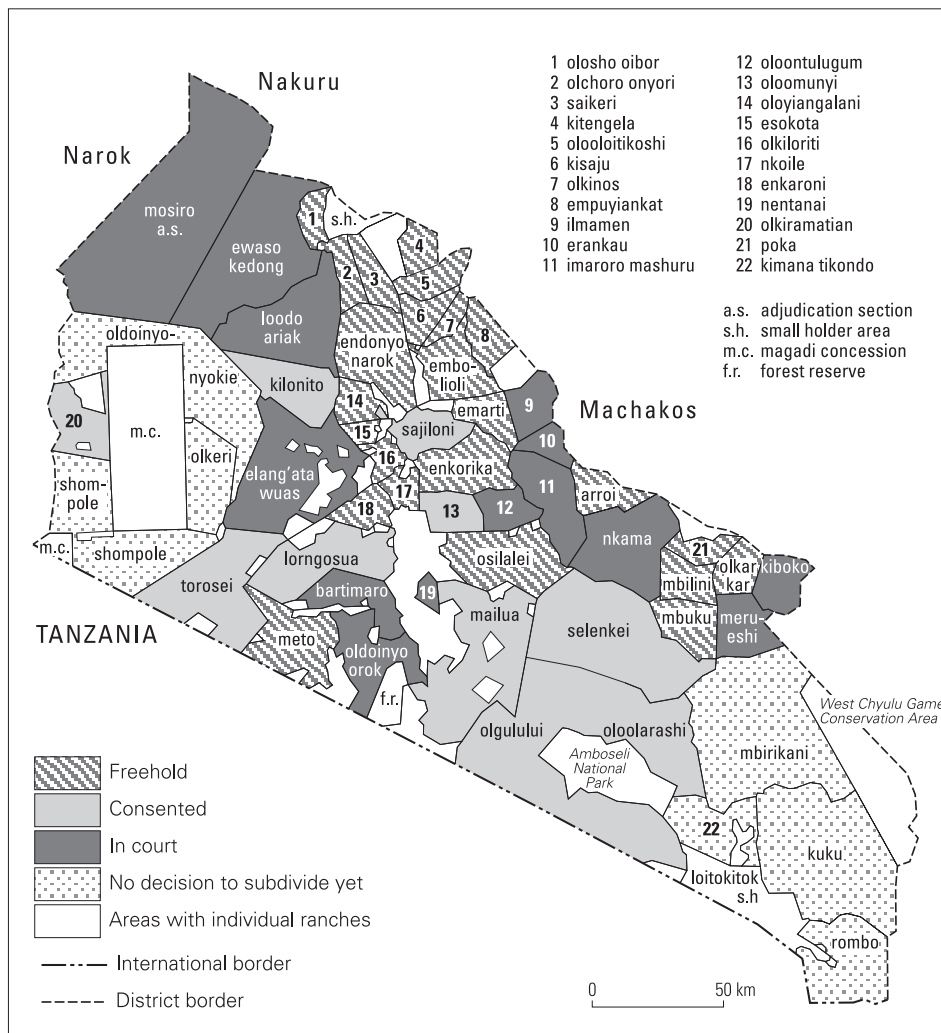
Source: Datasets 1990, 2000



Map 4.2a The land-tenure status of group ranches in Kajiado District in 1990

Young Maasai are better educated than their fathers and mothers but the Kenyan job market has a limited capacity to absorb them. Most Maasai remain engaged in the livestock industry either full-time or part-time, and many youngsters also try their luck in the livestock trade. Table 4.2 shows that the main occupation of the head of the household remains livestock keeping. For some, mainly Meto inhabitants who lost their livestock, cultivation became their main occupation by 2000.

The cultivation of maize (during the long and short rains) and beans (during the short rains only) is important for Maasai engaged in agriculture but the availability of seeds that fit the climatic conditions is a major problem.



Map 4.2b The land-tenure status of group ranches in Kajiado District in 1998

From Table 4.3 it can be seen that almost half of Olkinos farmers have a second occupation, mainly livestock keeping. In Meto almost all the heads of households engage in two or more activities, in particular cultivation. Some Maasai have made a substantial shift away from livestock keeping to agriculture while others use cultivation to reduce the pressure of forced livestock sales. Rich families employ (non-Maasai) labourers but poorer ones do the work themselves. Even (old) men are nowadays turning the soil, something which was once a taboo. The input of machinery is on the rise exemplified by the use of tractors and ox ploughs.

*Table 4.2* Main occupation of the head of household

	1990	2000
OLKINOS	N = 108	N = 45
Livestock keeping	70.4	69.8
Cultivation	1.9	18.6
Business	4.6	4.7
Wage labour	22.2	6.9
METO	N = 104	N = 41
Livestock keeping	93.3	70.7
Cultivation	1.0	19.5
Business	2.9	9.8
Wage labour	2.9	2.2

Source: Datasets 1990, 2000

*Table 4.3* Other occupations of the head of household

	1990	2000
OLKINOS	N = 108	N = 45
<i>2<sup>nd</sup> occupation</i>	<i>45.5</i>	<i>44.0</i>
Livestock keeping	20.4	24.4
Cultivation	13.9	8.5
Business	6.5	11.1
Wage labour	4.6	0.0
<i>3<sup>rd</sup> occupation</i>	<i>11.1</i>	<i>13.3</i>
Livestock keeping	3.7	2.2
Cultivation	3.7	2.2
Business	3.7	6.6
Wage labour	0.0	2.2
METO	N = 104	N = 41
<i>2<sup>nd</sup> occupation</i>	<i>91.3</i>	<i>84.4</i>
Livestock keeping	6.7	22.2
Cultivation	60.6	55.5
Business	21.2	2.2
Wage labour	2.9	2.2
<i>3<sup>rd</sup> occupation</i>	<i>28.8</i>	<i>8.8</i>
Livestock keeping	0.0	0.0
Cultivation	22.1	4.4
Business	5.8	2.2
Wage labour	1.0	2.2

Source: Datasets 1990, 2000

Table 4.4 provides details of wealth classes and their involvement in cultivation practices. It can be concluded that cultivation was initially something for the poor (especially in Olkinos) but by 2000 had been adopted by all wealth strata.

*Table 4.4* Cultivating by wealth stratum

	1990	2000
OLKINOS		
Poor	45.9	90.0
Medium	27.6	91.9
Rich	35.7	100.0
METO		
Poor	88.4	90.9
Medium	82.1	100.0
Rich	86.4	100.0

Source: Datasets 1990, 2000

Note: The wealth strata are based on Livestock Equivalents (LE) per Active Adult Male Equivalents (AAME). This is a more precise indication, based on metabolic weights, of the feed requirements of herds versus human beings. Cut-off points were established at 5 and 13 LE/AAME to produce three wealth strata. The equivalents used for livestock and human beings were as follows: LE: 0.71 for cattle and 0.17 for small-stock. AAME: 1.0 for adult men; 0.52 0-5 yrs; 0.85 6-10 yrs; 0.96 11-15 yrs; 0.86 female.

### The outcome of the group ranch subdivision process

After subdivision started in 1986, the former Olkinos members each owned a farm with a mean size of 46.7 ha within a range from 11.0 to 132.0 ha per parcel. The process of subdivision had been most favourable for the most powerful within the Maasai group ranches. Former committee members obtained above-average plot sizes. The average size of the farms held by these officials stood at 81.8 ha, almost double the overall mean size.

Landownership per person decreased during the 1986-90 period due to natural population growth and the sale of land. The average availability of land for Olkinos ranchers was reduced from 8.4 ha/person in 1986 to 7.1 ha/person in 1990, a fall of 16%. The Meto group ranch had not been subdivided by 1990.

#### *Opinions on subdivision*

A generally positive attitude towards the process of subdivision and the allocation of plots was recorded among the Olkinos and Meto ranchers. In 1990, 91% of the Olkinos members were positive, 7% had mixed feelings and only 2% were negative. Approximately 1 in 5 households, however, had mixed to negative feelings concerning the size of the plots allocated.



In recent years opinions have become more negative, especially among those who sold land. Overall though, opinions are still positive (81%) and the most negative point is the size of the parcels of land (18% negative). The opinions of women were also sought as they are very often not consulted when their husbands sell land. This gave a similar picture (see Table 4.5).

*Table 4.5* Overall opinion of women about subdivision

	OLKINOS 2000	METO 2000
Positive	86	76
Neutral	2	22
Negative	12	2

Source: Datasets 1990, 2000

Mwangi (2003) reports a similar outcome for Meto and other group ranches in southern Kajiado among a cross-section of Meto inhabitants (widows and six different male age groups) interviewed in 2001. The figure for Meto widows stood at 75% positive and 79.5% overall.

The fundamental reason for subdividing the group ranches of Enkaroni, Meto, Nentanai and Torosei were members' concerns with increasing numbers of people in the context of a fixed land resource base. As young men matured, they used to be recruited into group ranch membership and thus legally become landowners. This recruitment commonly involved the collective registration of an entire age set and members' shares in group ranch land were gradually diminishing with the expansion of its membership. The anticipated outcome was that parcels would be small and unviable upon the eventual subdivision of the group ranch at some unknown time in the future. This concern reflects a general sense that land subdivision was unavoidable due to events in Kajiado District and elsewhere in Kenya. Pushing for subdivision before a new age group was registered is reminiscent of the defensive move of the late 1960s to push for group ranches to stop the elite Maasai from acquiring individual title deeds and to stop non-Maasai from settling in the district. A positive attitude towards subdivision would seem to indicate that the concept of individual ownership of land in general is still favoured by the majority of landowners despite their negative experiences. However, a decade of individual title ownership has doubled the percentage of those holding mixed or negative feelings to the process of subdividing land into individual parcels. Those omitted from the process of subdivision are not included in the sample.

*The sale of land*

More detailed information concerning sales of land by the individual plot holders at Olkinos in the 1990-2000 period shows that in 1990 no specific set of characteristics could be perceived for the group of sellers, and sales of land occurred among a wide range of people irrespective of their age, wealth or education. It was noted, however, that the group of former committee members at Olkinos dominated the group of non-sellers. Those committee members who sold land had bought it previously and apparently for speculative reasons. Furthermore, a correlation was seen in the plot size per person and the sale of land. The more land available, the more would be sold, except by the wealthiest land-holding households who were not engaged in selling at all. This reflects the fact that the group of former committee members were aware of the value of the land they possessed as well as the shortcomings this amount of land posed for fenced ranching livestock production.

The marginalized Maasai who roam and have no involvement in group ranch matters seem to be the most willing to sell part of their ranches and earn the salary of a lifetime all at once! Some excesses have apparently followed (see Box 4.1).

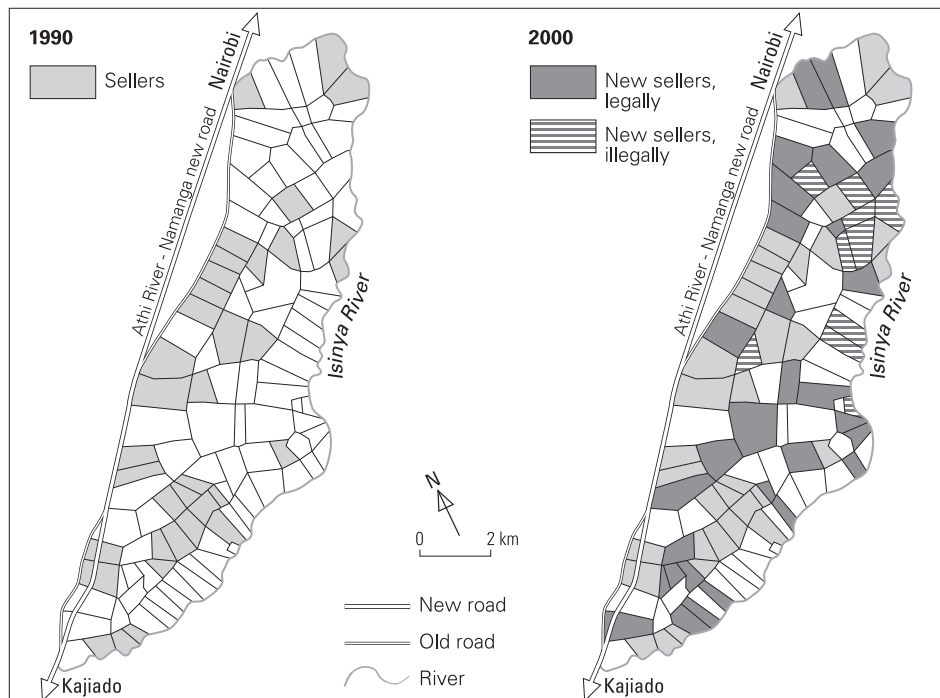
**Box 4.1** Some comments by (former) landowners in Olkinos

- *Came back from Nairobi (watchman). Regrets he immediately sold 5 acres of his land at a **throwaway price** to educate his children. Selling 0.5 acres would be sufficient nowadays. If he had had no land, he would have looked for other ways to educate his children.*
- *A former Kenyan soldier returned to keep livestock. When the drought hit in 2000, he had serious problems moving his animals because of **fencing** and agricultural plots. Also he has only girls and they are at school. His animals suffered and they all died.*
- *The household sold about ¾ of its land and **bought a lot of animals**. Now they do not know where to graze them, although he got a big plot of land as a former group ranch committee member.*
- *After getting his individual plot, he left his job as a driver in Nairobi. He sold almost all of his land and **did not invest**. Now he has no job, no land and regrets having ever had land.*
- *He misused all his land money. He is old, his wife passed away and he **feels guilty about having sold** all his land mostly to Kikuyu.*
- *As a former group ranch treasurer, subdivision seemed good and fair to him. It has helped many in the group ranch to **develop their own plots**.*
- *She is very comfortable because as a half Maasai-Kikuyu **widow** she might not have inherited land if subdivision would not have occurred.*

Source: interviews 2000

The comments by Maasai landowners show a mixed picture of the effects of individual landownership on a group of landowners who were apparently not well prepared to handle a new situation regarding property rights. It has brought chances and opportunities for the educated few and some immigrants but has been less favourable for the original Maasai landowners. This questions De Soto's claim that formal ownership is not just a system regulating property rights but is also an instrument that will force owners to think and plan ahead in order to get more value out of their newly acquired property.

From Map 4.3 it is clear that the process of land sales continued during the 1990s. In 1990 some 30% of owners had sold (part of) their land and by 2000 this had doubled. In addition to legal transactions, informal land sales were also taking place.



Map 4.3 Olkinos sales 1990-2000

By early 2003, Neighbours Initiative Alliance (NIA), a Kenyan NGO based in Kajjado, aimed through its 'Land Justice Programme' to educate the local people about the value of land. To this end it organised local discussions and also produced 36 billboards that carried the title "Selling Wealth to Buy

Poverty” taken from an earlier publication of the author (Photo 4.1). These English lines were translated in both Maa (*Osina orok emirata enkop* = selling of land will result in extreme poverty) and Kiswahili (*Kuuza uridhi kununua umasikiri* = selling your natural inheritance (= land) will make you poor). In addition, a reference was made to a verse from the bible (Leviticus 25:23): ‘The land shall not be sold forever: for the land is mine, for ye are strangers and sojourners with me.’ The billboards were placed in strategic places such as near markets, Lands Office, Administrative Headquarters.

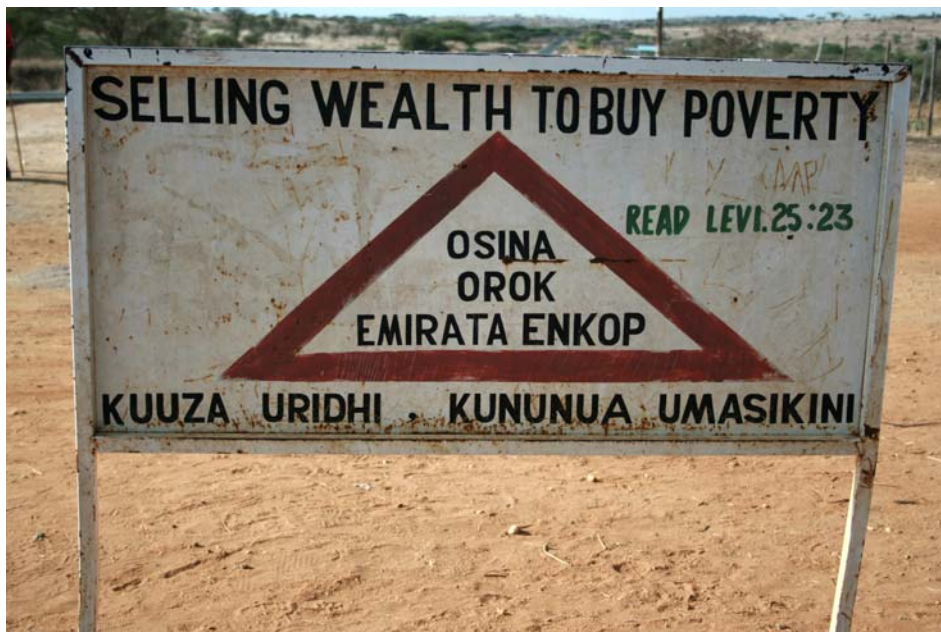


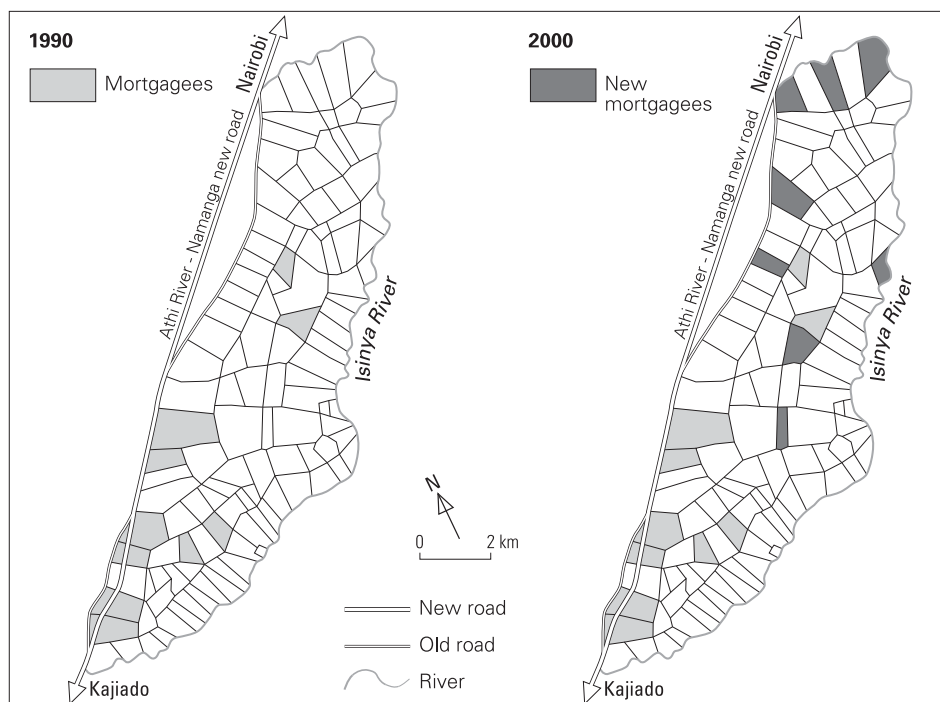
Photo 4.1 Billboard in Maasailand  
[Photo: Marcel Rutten]

#### *Acquiring loans*

Of similar interest is the trend in acquiring loans. Obtaining loans from financial institutions by offering land as collateral does not appear to have developed significantly among the new Maasai landowners. Only 17 applicants (2.2%) out of all the former group members intended to or had actually mortgaged 1,195 ha (1.6%) of the former group territory. It was claimed that selling land was a much faster, less obstructive and more comprehensible way of obtaining money than mortgaging one's plot. Financial institutions (especially the Agricultural Finance Corporation) also seem to have been somewhat reluctant to provide

loans, except when the prospective borrower had received some formal education and had other more important sources of income besides only livestock keeping. The individualization of land as such seems therefore not to have resulted in an increase in loans for ranchers. Other factors such as level of education, main occupation and experience or lack of it with financial institutions seem to have been of more importance. In 2000 the number of mortgages had increased but was still far smaller than the group of Maasai land sellers (see Map 4.4).

Information was also gathered concerning the utilization of the proceeds of land sales and loans. After subdivision, the percentage of Olkinos people who made infrastructural improvements rose from 21% to 56% of all Olkinos ranchers by 1990. Lack of funds or the fact that they were not settled were among the most frequently mentioned reasons for not conducting an improvement. Comparing Olkinos sellers with non-sellers and mortgagees versus non-mortgagees showed that both groups, sellers and non-sellers, were increasingly engaging in infrastructural improvements. However, the rise in the sellers' group is significantly higher. No clear picture emerged for mortgagees versus non-mortgagees.



Map 4.4 Olkinos mortgagees 1990 and 2000

Attention was also paid to the kind of improvements made. In 1990, the ranches had not been fenced by the original Olkinos ranch owners. As with drilling boreholes, this is a costly innovation and fencing was mainly restricted to small areas set aside for cultivation and young or sick animals. Those Olkinos ranchers that did fence their *shamba* or *ol-okeri* were mainly found among the group of educated Maasai and land sellers. The number of fences is on the rise and newcomers often fence their plots. Initially, Maasai occupants did not do so because fencing is costly, a hindrance and was thought to be unnecessary. Recently, well-off Maasai households have been fencing their land. In 2000 Meto had overtaken Olkinos in this respect, although the fencing they used was mainly natural. Fencing has however meant that the mobility of both livestock and wildlife is being restricted, which is problematic (Table 4.6).

Most of the infrastructural improvements made were in non-productive facilities, such as the building of a modern house. Other accusations made about consumer behaviour by the Maasai ranchers who sold part of their land frequently referred to the buying of cars and beer drinking.

Table 4.6 Fencing characteristics (as % of ranches)

	1990	2000	Material used
OLKINOS	0.0	11.1	barbed wire and poles
METO	n.a.	21.6	trees and shrubs

Source: Datasets 1990, 2000

The research also looked at the less capital-intensive improvements made in range management. Hardly any innovations were undertaken following subdivision, but Potter (1989) has stressed the common-sense nature of this, as such adjustments would not be economically viable anyway (see Table 4.7).

Table 4.7 Use of extra feed/rotational grazing (as % of ranches)

	1990	2000
OLKINOS		
Extra feed	1.1	2.5
Rotational grazing	6.5	10.0
METO		
Extra feed	0.0	0.0
Rotational grazing	0.0	7.3

Source: Datasets 1990, 2000

Hay is kept as an alternative kind of food relief during a period of drought, and some Maasai have turned to haymaking themselves. However, most feel this to be an unnecessary move and claim that grass is still plentiful. Hay is especially in demand by those pastoralists who have invested in improved breeds, pure Frisians in particular who are admired for their milk production but considered not to be well-suited to the area's harsh conditions. Sahiwal and Boran crosses are the most popular if one wants to increase (meat) output.

There is an opposite trend in the importance of improved breeds in the Olkinos herd as compared to the Meto herd. This is probably due to ecological conditions which are harsh for improved breeds in the Meto region (see Table 4.8).

*Table 4.8* Improved breeds held (as % of ranches)

	1990	2000
OLKINOS		
Improved cattle	16	73
Improved small-stock	24	71
METO		
Improved cattle	47	30
Improved small-stock	76	46

Source: Datasets 1990, 2000

The trend in cattle and small-stock ownership, expressed in Livestock Equivalents (LE) per AAME (Active Adult Male Equivalent) in both Olkinos and Meto, is clearly downward (Table 4.9). The average number of LE/AAME was lower in 2000 than in 1990 and fewer households were able to meet the 8.6 LE/AAME threshold for pure pastoralism.

*Table 4.9* Changes in herd size

	1990	2000
OLKINOS		
Mean LE/AAME	13.4	4.1
% < 8.6	48.1	86.7
METO		
Mean LE/AAME	9.0	6.3
% < 8.6	65.4	73.1

Source: Datasets 1990, 2000

Table 4.10 clearly indicates that the increase in small-stock numbers at the expense of cattle has stopped. However, the idea of a beef-market-oriented attitude among Maasai pastoralists was still far from the World Bank objectives of the 1960s. Maasai pastoralist strategy is still to invest in female cattle for milk production. Stated otherwise, income levels for Maasai pastoralists have not improved since land tenure was formalized; on the contrary, per capita income levels are in a downward trend in the longer term. The fast-growing Maasai population is putting pressure on the subsistence milk-oriented production capacity of the herd. A market orientation that was operationalized because of a rise in the proportion of small-stock in the herd has more or less reached its limits and higher outputs from improved breeds have shown promising developments, but failures as well.<sup>18</sup> Livestock numbers have fluctuated and the 2000 stock levels have fallen due to the drought and stress-causing diseases. Non-livestock options are on the rise, in particular cultivation. This is partly due to the changes in land tenure but it has also been observed in areas that have not been subdivided. Wage labour or business is still providing a limited source of income.

Table 4.10 Ratio cattle:shoats and percentage of female cattle in herd

	1990	2000
<b>OLKINOS</b>		
Ratio cattle:shoats	1 : 2.10	1 : 1.92
% females in cattle herd	67	72
<b>METO</b>		
Ratio cattle:shoats	1 : 1.59	1 : 1.60
% females in cattle herd	75	83

Source: Datasets 1990, 2000

#### *Improvements in shallow wells*

The subdivision of the group ranches triggered one key investment, i.e. in water development. Among the most revolutionary and productive developments has been the introduction of shallow wells and water pans within the farm compound. A well costs Ksh 150-200,000, which is about 10% of the cost of a borehole. The exact costs will depend on the time needed for digging. A filter is placed and a hand pump or diesel engine brings water to the surface for livestock (improved breeds) and human consumption. In some cases the water is

<sup>18</sup> The feeding of Napier grass is an option that might cause a revolution among Maasai herd productivity. Improved outputs to a factor five have been reported.



also used for cultivation. The wells have proved to be durable and reliable, and women, in particular, have benefited from this development since fetching water has become less time-consuming.

*Competition and conflicts over natural resources (land and water)*

In addition to individual newcomers, a few new industries have emerged in the Olkinos area, notably chicken, ostrich, flower and lately also tree-growing farms. Farm workers are mostly non-Maasai immigrants. A large number of private educational institutions have also arrived and the demand for water is consequently on the rise. This has resulted in increased conflict among the groups active in the area, especially over water (see the article in the *Daily Nation* and box on the next page).

Competition for land is on the rise too. Tour operators and nature conservation organizations are collaborating to try to safeguard wildlife corridors. Local communities are being urged to set aside part of their land in return for a share of the profits from wildlife-based tourism.

In the Meto area conflicts have also arisen. In the mid-1990s informal sales were rampant as Meto's Tanzanian Maasai members sold their title deeds unofficially for cattle or cash. In subsequent times of stress however, they were no longer allowed to return to the subdivided Meto area as in the past. In retaliation, the Tanzanian Maasai closed their wells on the Tanzanian side – the only ones available in the area – to the Meto Maasai.

Political interference by barons in the urban setting triggered a sensitization of the land question in the Matapato area (see DN 29/10/1994). Accusations were made that in Namanga Township and the Bissel Holding Ground, land was allocated to outsiders for monetary considerations alone at the expense of the indigenous owners. Even church compounds have not been spared. In return, the Matapato resolved that any land or plot allocation, sale or transfer within Matapato must be vetted and approved by the Matapato Development Committee. They made an appeal for a stop to the allocation of land at the expense of the indigenous people. Possibly because of this increased awareness of the value of land, Meto landowners did not rate land as their major problem in 2000 as Olkinos inhabitants did (see Table 4.11).

### The importance of land policies for the poor

Property rights are increasingly becoming a key issue of debate in Africa. Besides water, land is an asset that has gained attention in the last decade, not least because of the problems in southern Africa, in particular in Zimbabwe, Namibia and South Africa. Advocacy groups, often supported by western

# Councillors warned on farm raids

■ PAUL JIMBO  
AND WILLY OPINDI

THE Government yesterday cautioned Olkejuado County Council councillors against inciting a local clan to invade two flower farms in Kajiado District.

District Commissioner Kenneth Lusaka warned that the civic leaders would be held responsible if Kaputiei clan effected its threat to raid P J Daves and Isinya Roses flower farms.

Last week, local herdsmen served the flower farmers with "quit notices", accusing them of discharging toxic wastes into Olkinos River, their only water source.

The herdsmen also accused the farm owners of grabbing their ancestral land to set up the flower farms.

But Lusaka said a recent environmental impact report had given the firms a clean bill of health.

*Reports of a lack of water due to the drilling of boreholes by new settlers have been heard since the mid-1990s. Flower farms have in particular been accused of lowering water tables on and near their farms and of tapping water from the Nooltresh pipeline in such amounts that the water no longer reaches others. In March 2005 an accident was reported that involved local politicians inciting local Kaputiei Maasai to invade a flower farm in the Olkinos area. When following up, I learned, however, that the claim of discharging toxic wastes was false. A local Maasai herd owner had made a mistake in the mixture of the acaricide he applied to his cattle and 15 cows died as a result. Further enquiries, however, established that this story was rumoured by the cattle owner in return for footing the hospital bill for his family that had fallen ill after eating the meat as well as compensation paid by the flower farm owner for the loss of livestock.*

*Another, even more serious complaint aired, was that the use of water on the flower farm was so high that, for the first time ever, the water in Maasai wells in the vicinity of the farm had run dry. It was argued that the recent expansion of boreholes on the flower farms coincided with the reduction in water levels which was then felt during the 2004/05 drought.*

Source: Daily Nation (March 2005)

Table 4.11 Major problems for households

	1990	2000
OLKINOS	1. Water 2. Poverty 3. Animal diseases	1. Land 2. Water 3. Poverty
METO	1. Water 2. Animal diseases 3. Poverty	1. Water 2. School 3. Poverty

Source: Datasets 1990, 2000

donors, have sprouted rapidly in the last decade. In Eastern Africa the land question is 'hot' again too. New land policies have been drafted for Tanzania, Uganda and Kenya and, in the drafting of the new Kenyan constitution, a whole chapter was devoted to the land question.

Official World Bank policy, which has been employed over the years in Kenya and other developing countries to create a positive environment for economic development, is similar to the claim made by De Soto.<sup>19</sup> One of its officials, Klaus Deininger (2003) stresses that land is a key asset for the rural and urban poor as it provides a foundation for economic activity and the functioning of market (for example, credit) and non-market (for instance, local government and social networks) institutions in many developing countries.

Others have argued that the issue of security is not necessarily best guaranteed through formal land-tenure arrangements. Owen Lynch (2002), for example, has proposed a new typology which he calls the Community-Based Property Rights (CPBR) concept that would replace the old typology of land-tenure arrangements (private, common, state, open access) that denies the reality of a bundle of rights and promotes the disaggregation of individual rights from community-based systems. Instead, he states that CPBRs emanate from and are enforced by communities; that they are a bundle of rights (communal and individual) and that they refer to rights to water, land, forest products and wildlife. He differentiates between private and public, and between individual and group. Out of the four combinations he considers private – group to be the best option. The World Bank and the nation state, Lynch claims, believe that individual property rights are superior, a belief that has been strong for a while in some key sections within the Bank. However, World Bank thinking towards property has also undergone review in the last couple of years. The Bank has recently released a report entitled 'Land Policies for Growth and Poverty Reduction' that is based on wide-ranging discussions with key stakeholders. The report concludes that property rights affect economic growth. Security of property rights is needed for investment, credit, insurance for shocks and facilitating the transfer of land at low cost, and unequal land distribution reduces productivity. Insecure land rights prohibit the renting out of land; and poorly designed land markets and corruption hamper non-farm economic development.

Access to land and improving the ability of the poor to make effective use of land is central to reducing poverty. Experiences in the Kajiado area of southern Kenya, in particular the former Olkinos and Meto group ranches, however, challenge some of the Bank's statements. More conditions are needed to ensure that

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<sup>19</sup> It should be emphasized, though, that the World Bank stresses the security aspect of new land-tenure regimes. Security of tenure is not necessarily similar to formal statutory law and customary tenure might be a more secure arrangement.

security of tenure is assured and access to (affordable) credit is a realistic option. So far it seems that the commoditization of land has made the livelihoods of many Maasai more risky.<sup>20</sup> Nowadays, access and control over grazing land (i.e. flexible mobility) is less assured. Water resources are being depleted or diverted away from pastoral production by newly introduced activities operated by outsiders and/or elite Maasai. Stress-coping and survival strategies are under threat especially for the poor and levels of wealth are no longer merely expressed in ownership of cattle but primarily in the size of land holdings. The land-reform process is creating a more permanent arrangement of rich and poor members within Maasai society. There is a need to strengthen agricultural intensification and diversification, starting from local initiatives (e.g. water development) and to come up with labour-intensive alternatives. In summary, the Maasai are experiencing both positive and negative effects, either directly or indirectly due to changes in land-tenure arrangements. These can be summarized in a way as shown in Tables 4.12 and 4.13.

Table 4.12 Positive effects of individual landownership

<b>Direct</b>	
➤	Restricting misuse of grazing land by neighbouring individual ranchers.
➤	Wealthy herders are renting land from poor pastoralists.
➤	The misuse of loans by corrupt committees is no longer possible.
➤	Flexibility in pasture management is reintroduced.
<b>Indirect</b>	
➤	Job opportunities in the mining and flower industries are increasing.
➤	Maasai are copying immigrants' activities, improvements in cultivation, modern houses, water facilities, etc.
➤	Extra fodder (Napier) is being grown.
➤	There is bartering of livestock (products) for maize and beans.
➤	Informal self-help groups are investing money and labour in steer fattening, breed improvements and wells.

<sup>20</sup> A specific case to stress the risk of formalizing property rights for local landowners is the Loodariak group ranch (146,000 ha) located in Kajiado District some 75 km south of Nairobi. During the land adjudication process, fraudulent land allocations to the tune of 20,000 ha to 362 non-members occurred. Among the beneficiaries were the political elite including ministers, while some 1,200 poor Maasai were left out. The local Maasai have since then tried to get the adjudication cancelled, even drafting a 'Land Adjudication (Amendment) Bill', but in vain.

**Table 4.13** Negative effects of individual landownership

<b>Direct</b>	
➤	The livestock system is undermined by removing (high-potential) land out of the pastoral migration cycle.
➤	There is reduced access to land (sales, fencing, and grazing fees).
➤	Several Maasai households are in disarray after land sales due to extreme poverty, hunger and court cases.
➤	Only a few Maasai widows have been given a title deed. Usually only non-Maasai women (groups and rich individuals) are able to buy land.
<b>Indirect</b>	
➤	Households have been split and there is less labour for herding.
➤	Land sellers are buying more livestock which leads to higher stocking densities on already overstocked farms.
➤	Some of the new activities are threatening the area's carrying capacity (e.g. flower production).
➤	Poverty has a detrimental effect on the environment (e.g. charcoal burning).
➤	Loss of land is pushing many Maasai into wage employment but they cannot compete due to a lack of education.
➤	An influx of outsiders is causing tension between ethnic groups. Political patrons can manipulate these tensions by instigating clashes.
➤	Land sales can result in poverty of a more structural nature (loss of respect in society). Herds – unlike land – can be rebuilt.

## Conclusion

This chapter has discussed the evolution of land-tenure arrangements from group to individual ownership in Kenya's Maasailand in the period from 1985 to 2000. It has addressed in particular the pros and cons of this process within the context of De Soto's claims that formal property rights will increase the incentive of households and individuals to invest and will provide them with better credit access. Experiences in Kenya during the subdivision of the Maasai group ranches in Kajiado District, however, challenge this bold claim. The formalization of individual land rights has not triggered a widespread run by the local farm owners on financial institutions, nor has it benefited the majority of them economically. In contrast, the formalization process has brought severe problems for many of the original landowners after the sale of (part of) their land. The beneficiaries have mainly been speculators and new immigrants. The latter have either acquired a small piece of land for crop cultivation or found a job on one of the new flower or tree farms or at educational institutions. This influx of new economic activity is to a certain extent responsible for the overall heightened strain on natural resources, notably water, putting pressure on the sustainability and resilience of the area's main economic activity, namely livestock keeping. As a result, severe forms of poverty, which are of a more structural nature than in the past, are creeping into Maasai society. Loss of land

is harder to overcome than loss of livestock. In short, the role property rights can play in benefiting less well-off members of society will in reality be less easy to achieve and might be more of a threat to these groups, leaving the opportunities to a small minority of foreigners, immigrants, the educated elite and well-informed politicians.

Reviewing the changes in Kajiado District in the last decade leaves one with the impression of a people and way of life under increasing pressure. Shrinking land resources due to increasing numbers of Maasai people and an even faster-growing number of migrant settlers in the district, malfunctioning group ranches and the call for their subdivision, a lack of a clear governmental land policy and corrupt land practices threatening large groups of Maasai have all contributed to this.

The role of the Kenyan government should also be stressed here. The central government's initial opposition to the subdivision of group ranches seems to have changed to a standpoint of modest support. Once the dissolution of group ranches was no longer opposed by (part of) the administration, the process of subdivision went very quickly.<sup>21</sup> The same arguments De Soto put forward in favour of formal land rights were used in the 1960s by the World Bank and the UNDP and again in the 1980s by those in favour of the subdivision of group ranches. In my opinion, none of those who allowed this process to happen fully realized or wanted to acknowledge the possible negative side effects it would have for a large number of Maasai people, their children, the district's ecology, the livestock economy, wildlife and the tourism sector. As a result, the process started without clear guidelines and amongst a group of people who were not yet ready to withstand the clamour for land within modern-day Kenya.

Foreign donors are sometimes involved in the formalization of land-tenure arrangements. International policy-makers need to understand, however, that providing funds to establish a land titles register is only one side of the coin. They should ensure that the intermediate phase of fundamental changes in the legal/tenure system is the final chance for speculators and the well-informed to misuse these new opportunities at the cost of the illiterate in society. The land register funds should come with the understanding that some of the money be allocated to district wide discussions concerning the consequences of the pro-

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<sup>21</sup> Those sections within the government opposing subdivision, like the Range Management Division within the Ministry of Agriculture, Livestock Development and Marketing, have been abandoned in the process of subdividing group ranches. Nowadays, a feasibility study of the group ranch to be subdivided, showing the individual parcels as well as areas to be set aside as public utility plots, is no longer needed. Once the group ranch members decide to dissolve their demarcation sketch, a surveyor is asked to produce the final map before applying to the Divisional Land Control Board for the transfer of the single group title into individual title deeds.

posed new land-tenure setting. This is not so necessary among policy-makers and politicians but more so among the local inhabitants. I cannot illustrate this limited scope and horizon among policy-makers more clearly than by referring to a remark made by a young Dutch policy-maker who, following a presentation of the Kajiado case, said 'You spoke about land rights but mainly about livestock numbers and other socio-economic indicators'. Her interest had been to get more detailed information about the legal and geographical technicalities of the formalization of the land-tenure system and was not so concerned in the implications. And after a presentation of this same case at the World Bank, some of its policy-makers clearly embraced the positive outcome of the process of individualization and belittled the negative ones. This biased attitude is equally dangerous.

The Maasai experience shows that De Soto's claim that the hidden wealth of the poor can be brought to the surface by simply formalizing their property is rather short-sighted. Alongside formal property rights are a whole range of other legal and non-legal arrangements that need to be put in place before the West's experience can be copied. For example, financial institutions need to be willing to lend money to illiterate landowners and need to do this at reasonable interest rates. Corrupt practices in formal land registration do not build confidence in the formal land-tenure system and living in a natural environment characterized by a non-equilibrium situation makes economic activities such as livestock keeping risky and may quickly result in loan arrears. The failure of World Bank/UNDP managers to run a profitable business on the Maasai ranches in the 1960s and 1970s is proof that, in addition to formal property rights, these international policy-makers from the West should have brought along their mild, mostly livestock-disease-free, climatic zone to this semi-arid area. This wisdom was aired in colonial days by Lord Hailey, Lambert and Fallon, the latter stating that 'Individual ownership or control should be encouraged. It must be remembered, however, that individual ownership alone cannot guarantee proper land use' (Fallon 1962: 28). But as long as these huge risks create an insecure business climate that easily undermines investments, the introduction of formal property rights will not be able to act as the panacea for wealth creation in these regions. On the contrary, evidence presented here shows that the opposite, i.e. a loss of wealth, is more likely. For now, besides educating Maasai landowners on the value of land, the best the Maasai youngsters can hope for is that their parents will value the wealth they still own. And as for De Soto's claim that formalized property rights will do the trick, let us hope that Kenya's experience is an exception to this rule.

## References

- Carter, J.M. Sir 1934, *The Kenya Land Commission Report*, London: H.M. Stationery Office.
- De Soto, H. 2000, *The Mystery of Capital – Why Capitalism Triumphs in the West and Fails Everywhere Else*, London: Bamtam Press.
- Deininger, K. 2003, *Land Policies for Growth and Poverty Reduction*, Washington DC: Oxford University Press.
- Dietz, A.J. & M.M.E.M. Rutten (eds) 1989, 'The Future of Maasai Pastoralists in Kajiado District, Kenya', Integrated Proceedings of a Conference in Brackenhurst Baptist International Conference Centre, Limuru, Arid and Semi-Arid Lands Programme Kajiado District, 28-31 May.
- DN, *Daily Nation*, several dates.
- EAS, *The East African Standard*, several dates.
- Fallon, L.E. 1962, *Masai Range Resources: Kajiado District*, Nairobi: USAID.
- Gordon, D.F. 1979, 'Colonial Crises and Administrative Response: Kenya, 1945-60', *Journal of African Studies*, 6 (2): 98-112.
- Hedlund, H. 1971, 'Impact of Group Ranches on a Pastoral Society.' Institute for Development Studies, Staff Paper, no. 100, Nairobi.
- Hedlund, H. 1979, 'Contradictions in the Peripheralization of Pastoral Society: The Maasai', *Review of African Political Economy* (15/16): 15-33.
- Jacobs, A.H. 1980, 'Pastoral Maasai and Tropical Rural Development', in: R.H. Bates & M.F. Lofchie (eds), *Agricultural Development in Africa. Issues of Public Policy*, New York: Praeger, pp. 275-300.
- KDAR (several years from 1927 to 1988) *Kajiado District Annual Report*, Kenya National Archives and Kajiado District Information and Documentation Centre.
- Kimani, K. & J. Pickard 1998, 'Recent Trends and Implications of Group Ranch Sub-division and Fragmentation in Kajiado District, Kenya', *The Geographical Journal*, 164 (2): 202-13.
- KNA/DC/KAJ/X/X/X, Kenya National Archives files of Kajiado, Narok, Ngong, Rift Valley Province, Central Province etc.
- Lawrance, J.C.D., G.J. Humphries, S.R. Simpson, G.M. Gaitta, C.P.R. Nottidge & J.D. Macarthur 1966, *Report of the Mission on Land Consolidation and Registration in Kenya 1965-1966*, London: Republic of Kenya.
- Lynch, O. 2002, 'Workshop Overview', in: *Amplifying Local Voices – Striving for Environmental Justice*, Proceedings of the African Public Interest Law and Community-Based Property Rights Workshop, Usa River, Arusha, Tanzania, 1-4 August 2000, Washington DC: CIEL, pp. 5-16.
- Muranja, G. 1973/74 'Land Politics and Economic Advancement in Ngong Division, Kajiado District, Kenya', *Taamuli*, 4 (1): 55-63.
- Mwangi, E. 2003, 'The Transformation of Property Rights in Kenya's Maasailand: Triggers and Motivations', Paper presented at the 7th Annual Conference of the International Society for the New Institutional Economics, Budapest, 11-13 September.



- Ntiati, P. 2002. 'Group Ranches Subdivision Study in Loitokitok Division of Kajiado District, Kenya', LUCID Working Paper Series, no. 7, International Livestock Research Institute, Nairobi.
- Pasha, I.K. ole 1986, 'Evolution of Individuation of Group Ranches in Masailand', in: R.M. Hansen, B.M. Wole & R.D. Child (eds) *Rangeland Development and Research in Kenya*, Proceedings of a Conference, Agricultural Resources Centre Egerton College, Njoro, Kenya, 1-5 April 1981, Winrock International Institute, Morrilton, pp. 303-17.
- Peron, X. 1984, 'Water Policy in Maasai Country in Kenya: Development without Participation', Paper presented at the symposium 'Agricultural Development and Peasant Participation: Water Policy', *Bulletin de Liaison*, CREU, Newsletter, (12): 41-71.
- Potter, H.L. 1989, 'Some Thoughts on the Prospects for Intensification and Diversification in Kenya Masailand', Paper presented at a conference held in Brackenhurst Baptist International Conference Centre, Limuru, Kenya, 28-31 May.
- RBC 1962, *Kenya: Report of the Regional Boundaries Commission, Presented to Parliament by the Secretary of State for the Colonies by Command of Her Majesty*, London: HMSO, Cmnd 1899.
- Rutten, M.M.E.M. 1992, *Selling Wealth to Buy Poverty. The Process of the Individualization of Land Ownership among the Maasai Pastoralists of Kajiado District, Kenya, 1890-1990*, Saarbrücken & Fort Lauderdale: Verlag Breitenbach Publishers.
- Sorrenson, M.P.K. 1965, 'Land Policy in Kenya 1895-1945', in: V. Harlow, E.M. Chilver & A. Smith (eds), *History of East Africa*, Volume II, Oxford: Clarendon Press, pp. 672-89.
- Swynnerton, R.J.M. 1955, *A Plan to Intensify the Development of African Agriculture in Kenya*, Colony and Protectorate of Kenya, Nairobi: Government Printer.
- Tobiko, K. 1989, 'The Land (Group Representatives) Act: A Case Study of Ilkaputiei Maasae Group Ranches of Kajiado District', Unpublished LL.B Thesis, University of Nairobi.
- Western, D. 1982, 'Amboseli National Park: Enlisting Landowners to Conserve Migratory Wildlife', *Ambio* 11 (5): 302-308.

## Political instability, chronic poverty and food production systems in central Chad

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*In many parts of the world long-term political instability combined with frequent droughts results in chronic poverty and high levels of malnutrition and child mortality. Despite the magnitude and importance of the problem in these areas, the relation between political instability and changes in food production systems that form the basis of the economy in many remote rural areas of the world, has rarely been investigated. In this chapter three case studies of villages in the Guéra region in central Chad will be presented. This areas was particularly hard hit during 25 years of civil war and recurrent drought between 1965 and 1990. The case studies show that the functioning of food production systems in these villages differs widely depending on the particular context and the extent to which the villages were exposed to violence and other pressures such as drought and religious change.*

### Introduction

Chronic poverty is a persisting phenomenon in Africa, especially in remote rural areas (Bird *et al.* 2002, Bird & Shepherd 2003) where it occurs in contexts of ecological, economic and political instability. Such contexts have been labelled

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'complex emergencies' in the literature (Macrae *et al.* 1994), i.e. prolonged situations of drought and political instability in areas where the economic and social infrastructure is weak or in a state of disrepair because of an existing emergency. Complex humanitarian emergencies are defined as long-term multi-causal crises that require system-wide responses (Duffield 1994: 38) According to the UN, Chad and its neighbours Sudan and the Central African Republic have been declared complex emergencies.<sup>2</sup>

In these situations, access to the resources necessary for the continuity of livelihoods is frequently restricted and because of the enduring character of these conditions, chronic poverty results and often persists long after the complex emergency has ended (Goodhand 2003). The effects manifest themselves in the form of malfunctioning political institutions, fundamental changes in food production systems and the irreversible disruption of the relations that bind social groups and families together. These conditions result in high rates of child mortality, malnutrition, morbidity and day-to-day conflict (Hulme & Shepherd 2003). Situations are becoming chronic and the life chances of the present generation are being affected to such an extent that the effects are being passed on to the next generation in the form of stunted growth and reduced intellectual capacity (Moore 2001). On the food production side, these emergencies have a long-term impact on production systems, patterns of access to resources and food insecurity.

The relationship between chronic poverty, changes in food production systems, resource tenure systems and political instability is explored in this chapter by considering the changes in food production systems in central Chad in three different villages. They were all differently affected by the civil war that ravaged the country and this area in particular between 1965 and 1990. It is argued that this may partially explain how food production systems have developed over the past decades and the way in which land tenure regulations have come into being.

### Political instability and food production systems

Remote rural areas in Africa, also euphemistically called 'less-favoured areas' (Ruben & Pender 2004), are known for their bad living conditions, a lack of social services and chronic poverty. The percentage of people living on less than US\$1 a day is often higher than 80% and most of these areas are subject to periodic droughts that lead to oscillations in food production and famine conditions. An economic and social infrastructure is usually absent and, if present, frequently malfunctions (Kuyvenhoven *et al.* 2004). Governments do not have

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<sup>2</sup> [www.reliefweb.int](http://www.reliefweb.int) (accessed 11 June 2007).

the capacity to provide good services or administer these areas properly and low population densities tend to make the cost of providing services prohibitive. A shortage of human capacity, corruption and bad governance further contributes to a low level of service provision.

From an economic point of view, remote rural areas are in a bad position. Given their isolated location often in countries with no seaport and their general lack of infrastructure, access to markets is difficult because of the high transportation costs involved. Local producers face two main disadvantages: their inputs are more expensive, and their products fetch lower prices because of the distance to markets, which in turn makes it less attractive to invest in agricultural production (Bryceson 2000).

Given the weakness of the states governing these areas, remote rural areas are susceptible to political instability. Their distance from the capital makes it difficult for the state to control these vast territories. Local administrators and the military who are charged with territorial administration and the maintenance of security often have too many powers. In the absence of democratic control, oppression, corruption and the uncontrolled use of violence by the state is often the rule rather than the exception. Given the low level of central control, the potential for ethnic and political conflict is high, and can lead to localized rebellions and sometimes to general insecurity. All these different factors coalesce and the compounded effects of the hazards may result in what have been labelled 'complex emergencies' in the literature. These emergencies have primarily been studied as historical phenomena or within a framework of the provision of emergency aid, the restoration of peace, and conflict resolution (see Duffield 1994, Albala-Bertrand 2000, Lautze *et al.* 2004). Little thought has yet been given to an analysis of complex emergencies and the long-term effects of these phenomena (see Barakat *et al.* 2005).

Complex emergencies are also complex in a legal sense. Access to certain resources can help overcome the consequences of an emergency and is crucial in disaster situations and hazardous conditions (Wisner *et al.* 2004). In most studies of legal complexity, it is assumed that various legal systems co-exist and that people who are trying to settle legal problems refer themselves to these legal systems and negotiate their way to the most acceptable solution. Terms such as 'legal pluralism' (F. von Benda-Beckmann 1983) and 'forum shopping' (K. von Benda-Beckmann 1981) are used for these kinds of situation. However, the regulation of access to resources during complex emergencies is not only about the law and interaction between plural legal systems but also about the workings of power, violence and conflict. An analytical focus on the complex workings of governance processes at different levels of society and the state is, therefore, warranted.

Situations of war and violent conflict are normally regarded as exceptional and not representative of normal processes of governance. However, in situations of protracted war and long-term political instability that sometimes span decades, one could also argue that war and violence have become the most important ways of governing and controlling access to resources. An assessment of the consequences of war and violence on patterns of access to resources and the functioning of food production systems, on which more than 90% of the population in remote rural areas depend, is therefore crucial in assessing the long-term impact of complex emergencies. Specifically, one should focus on how patterns of resource distribution through the population have evolved and the ways in which they have come to be used over time (technologies, labour and knowledge).

Little thought has been given in legal science to the relationship between political instability and law and legal complexity (von Trotha 1993). In situations of political instability, the state loses its monopoly on violence, which has important consequences for the workings of the law and its role in mediating access to resources. It may lead to situations in which legal systems or jurisdictions not only co-exist at times but also rapidly compete with each other and follow in rapid succession. The settling of land claims during a complex emergency characterized by political instability may later on be considered illegitimate or unfair as the people were coerced into accepting these solutions in the face of violence. Solutions born out of the war-torn local environment may, therefore, give rise to new conflicts.

War and violence also promote rapid political, social and cultural change, and disrupt settlement patterns and land-use practices. Examples are the accessibility of land due to the presence of mines or the effects following the killing of so many men on the organization of rural labour and the strength of the claims of their female family members and widows to the land. The effects of war may be even more profound on the functioning of structures of governance such as the official administration and traditional authorities. Often the administrative system is completely disrupted and, in some instances, governance structures may lose their legitimacy because of their role in the war. During the war, people may have changed from one normative system to another or been forced to do so by new power holders or because they felt that their previous way of organizing and sanctioning norms and rules were no longer valid in the difficult situation they are now encountering.

There appear to be very few studies that address these problems in a systematic way (e.g. Yalçın-Heckmann *et al.* 2003). Yet it is an extremely relevant topic given the number of countries that are in turmoil and have experienced severe conflict in the past decades. Population displacements, the devastation these conflicts caused and numerous institutional deficiencies have remained

important factors in the post-conflict reconstruction phase. The rest of this chapter discusses the impact of political instability in Chad on food production systems in the Guéra in central Chad.

Data were collected during an eight-month stay in Chad in the framework of a research programme focusing on the consequences of drought and civil war in the Guéra region of central Chad between September 2002 and May 2003. Interviews were done both in the Guéra and in the capital with migrants from the area. Village studies in the Guéra concentrated on livelihood activities, village histories, food production systems, and nutritional and anthropometric data. Supplementary data were collected in subsequent field trips in 2004, 2005 and 2006. The author was responsible for the research on food production systems and the two other researchers focused more on the project's anthropological and nutritional components.<sup>3</sup>

## Chad

Chad, the fourth largest country in Africa, is land-locked and sits at the crossroads between East and West Africa and North and Central Africa. Half of its surface area of 1.24 million km<sup>2</sup> is in the Sahara, while the southern part of the country borders the humid forest zone. The diversity in climate, vegetation and socio-political organization is enormous, with black African desert nomads inhabiting the north, combinations of pastoralism, agro-pastoral and sedentary agricultural groups in the central Sahelian part of the country, and in the south the cultivation of cereals and tubers, which are an important source of food.

At independence, Chad was ill-prepared for self-governance. Even though self-rule had been introduced following World War II (see Lanne 1998), it was hard to expect Chad to be ready to develop into a mature Western-style democracy. Parts of the country had only been under colonial rule since 1930 and the colony had been under military rule for much longer than other parts of colonial French Africa.

The administrative system at a local level consisted of sultans and *chefs de cantons*, who had been put in place by the colonial government. The stature and legitimacy of these local and regional representatives differed widely. On the one hand there were sultans who were the direct descendants of the rulers of the pre-colonial empires of Ouadday/Biltine Kanem and Baguirmi. On the other, there were areas in the south as well as in the extreme north where no cen-

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<sup>3</sup> Field research was sponsored by the African Studies Centre. This interdisciplinary project involved collaboration with Mirjam de Bruijn (anthropologist, African Studies Centre) and Nakar Djindil Syntiche (nutritionist, *Laboratoire de Recherches Vétérinaires et Zootechniques de Farcha*). For some of the findings, see de Bruijn *et al.* (2003), de Bruijn & van Dijk (2007), and de Bruijn & Djindil (2007).

tralized government had existed until colonialism. Here, the French appointed 'traditional' rulers but, not knowing local power relations, they appointed anyone as *chef de canton*, including their cooks, drivers or housekeepers, probably because of their knowledge of French (Lohse 2002). Any kind of government – local, traditional, neo-traditional or modern – would have had a hard time gaining the confidence of the population and being seen as legitimately expressing the population's political will.

Compared to other former French colonies, Chad was handicapped at independence. There was hardly any infrastructure, communication networks were not in place and there were very few educated people (and most of those came from the south of the country). It was difficult to ensure even the most rudimentary form of administration in large parts of the country. The north remained under French administration until 1965, with southern civil servants lacking credibility in the eyes of those from the north and central parts of the country. Moreover, these civil servants thought the time had come to oppress the northern population after centuries of slave raiding in the south.

Despite their lack of legitimacy, the French-appointed neo-traditional authorities (*chef de canton*, *chef de village*) became more important. They formed the basis of state power in most of the country, and the financial benefits accruing from these positions increased. In the absence of any countervailing power and a functioning legal system and in the presence of an administration based on exploitation, they became administrators, judges and prosecutors at the same time.

There was little scope for political and democratic reform or the expression of civil liberties and political education. Religious and ethnic divisions had deepened during the military struggle. While Muslims and Christians<sup>4</sup> were more or less proportionately represented in the legislative and governing bodies of the colony and the state during the first years of self-governance and independence, this fragile equilibrium was fractured after a decade or so of rebellion by FROLINAT (*Front National Pour la Libération National du Tchad*) against the government. After 1966, the movement fought the post-colonial government of the southerner Ngarta Tombalbaye, who was finally toppled by a military coup in 1975. After a tumultuous period, governments dominated by northerners came to power (Buijtenhuijs 2001) and have remained in power to date. Some even claim that the Zaghawa, members of the president's clan, dominate the state apparatus nowadays.

Soon after independence, the central government lost control of parts of the country and, following revolts in the east and the centre of the country, armed opposition groups, under the banner of FROLINAT, took control. These oppo-

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<sup>4</sup> Animists were mostly uneducated and therefore did not qualify for political positions.

sition groups were supported by foreign assistance from Libya and Sudan, and dominated the political history of Chad from 1965 until 1990 when Idriss Déby took power.

The country was in a state of anarchy during this time and even afterwards there was no monopoly on violence by the state, with ongoing fighting and rebellions (eighteen since 1990) in large parts of the country. The security forces were not under central government control and they pillaged the countryside, violating people's human rights.

Though the situation was relatively calm from 1990 to 2003, democratization and political reform had to be implemented under complicated conditions. The population was traumatized after 25 years of insecurity, dictatorship and famine due to a combination of drought and military insurgency, and exhausted by the double exploitation of the government and the opposition forces. In addition, the present government does not serve as an example of transparent, democratic governance nor did it do much to reconcile the various population groups that were opposed to each other during the years of civil unrest.

The economic and political situation is bad. On every indicator of social and economic development, Chad figures among the worst in the world. In 1990, there was no trace of democratic tradition at the level of the administration, nor was there much scope for local people to participate in politics at a local level since there was always a threat of violence from either the administration or its opponents. Banditry was rampant and there was hardly any control of the security forces that were supposed to protect the population but instead terrorized the people. After the Habré regime, under which approximately 40,000 people were killed and 250,000 imprisoned, civil society was weak and shattered. However, pressured by protests following the general wave of democratization in the early 1990s and pushed by donors, President Déby gave way to administrative reforms in 1993. As in many other West African countries, a national conference was held to develop a blueprint for the future of Chad and its road towards democratization (Buijtenhuijs 1993).

Around 2000, administrative reform became more concrete when a process of administrative decentralization was set in motion. The official purpose of the whole decentralization process was the establishment of municipalities, departments and regions as self-elected territorial units. Decision-making authority was then relegated in the domains of health care, education, hydraulic infrastructure, physical infrastructure and markets. The official purpose of decentralization was to repair defects of the administrative system but this operation has turned out to be much too costly for the Chadian government (Lohse 2002).

The level of urbanization is low, with 80% of the population subsisting on agriculture. The country's main cities are N'Djaména, the capital, Moundou and



Sarh in the south, and Abeché in the east. The country is extremely poor as a result of both the difficult natural conditions and decades of civil war and political unrest that lasted from 1965-1990. Chad ranks 171<sup>st</sup> out of 177 countries on the UNDP's Index of Human Development (UNDP 2006). With the discovery of oil, which came on line in 2003, there were hopes that revenues from this source might be channelled into socio-economic development. In the south, the oil fields are being exploited by two American and a Malaysian oil company. According to an agreement with the World Bank, that funded part of the exploitation, the revenues from oil should be mainly invested in socio-economic development, with 10% being reserved in a fund for future generations. This offered the prospect of economic growth and socio-economic development but by 2006 the Chadian government was already trying to get this clause removed from the agreement because of budgetary problems caused by political unrest and the mismanagement of state resources.

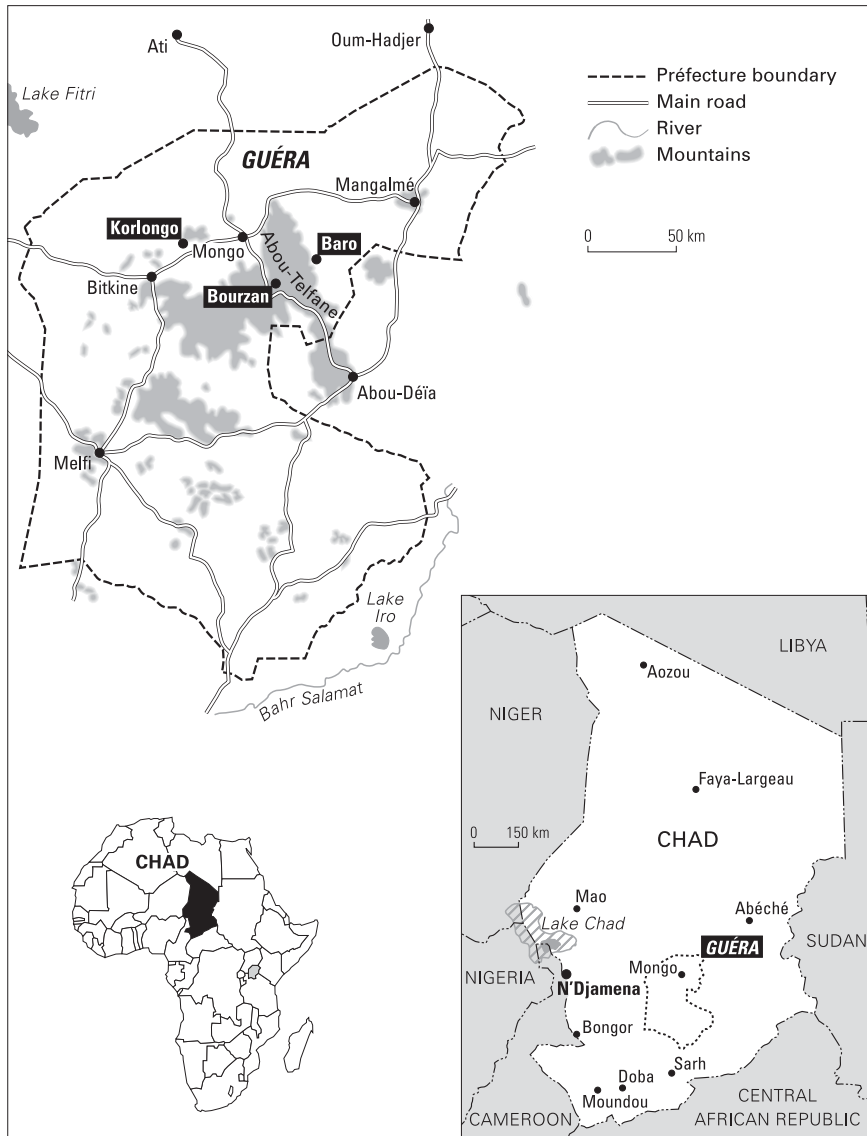
Since 2004, the political situation has deteriorated rapidly because of the conflict in Darfur in neighbouring Sudan, in which ethnic groups that straddle the border – one of them being the clan of President Déby – are deeply involved. During 2005 and 2006, there was an increase in cross-border raiding by *Janjaweed* Arab militias from Sudan and there were accusations by Chad and Sudan that each was supporting armed groups opposed to the other's regime. There were several attempted *coups* against President Idriss Déby's regime, with the Chadian army suffering defections among those dissatisfied with President Déby's soft stance against Sudan. Most joined armed rebellion groups based in Sudan because they were unhappy with the government and the slow progress of democratization (de Bruijn & van Dijk 2006).<sup>5</sup> In this context, any attempt at political and economic reform is bound to fail, as the oil revenues are increasingly being spent on war, and the government's attention is exclusively focused on survival.

### Poverty, resource tenure and land use in central Chad

The Guéra is a mountainous area in central Chad, in the geographical centre of the country, halfway between east and west in the Sahelian zone. The landscape is dominated by mountains rising to 1600 m in the middle of the vast plains of central Chad. The climate is Sahelian with rainfall varying from 400 to 750 mm

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<sup>5</sup> However, the good intentions of these armed rebel groups must not be taken too seriously. They have not been capable of formulating a coherent political programme. Most of the leaders have held important positions under former President Hissein Habré and the current President Idriss Déby, and are not known for their support of democratization.



Map 5.1 The Guéra in Chad and research locations

per annum. Agricultural conditions are difficult. Soil fertility is generally low on the sandy soils on the mountains and on the plains near the mountains. The clayey soils on the plains are somewhat more fertile.

The main crops are pearl millet (*Pennisetum thypoides*), though increasingly less so because of problems with weeds (*Striga hermonthica*) and birds, and various varieties of sorghum (*Sorghum bicolor*). Flood retreat sorghum

(*berberé*) is cultivated on the clayey plains when the water retreats after the rainy season. The women cultivate peanuts (*Arachis hypogea*) and sesame (*Sesamum indicum*) on separate fields either on infields around the house or on outfields as follow-up crops after millet or sorghum. In addition, women cultivate a number of vegetables such as okra (*Hibiscus esculentus*), pumpkin (*Curcubita spp*) and garden sorrel/sour dock (Fr: *oseille sauvage*; *Rumex acetosa*).

The sedentary population is divided into different ethnic groups, collectively known as the Hadjerai (from the Arab *hadjer*, mountain), with their own language and socio-cultural characteristics. Roughly each mountain range is inhabited by a different ethnic group overseen by its own mountain spirit or Margay.<sup>6</sup> Until recently, most Hadjerai adhered to the animist cult that worships these mountain spirits and is led by Margay priests who used to protect the population against outside intruders and took care of rainfall (Fuchs 1970, Vincent 1975). However, with colonialism, Islam and Christianity arrived in the area. Islam, which had been present for centuries, was intensively propagated by northern rebel forces during the civil war and Christianity was brought to the area by Catholic and Protestant missionaries after the Second World War. Islam is the dominant religion in the area today, with a small minority of Christians, and only elderly people and isolated villages still worship the Margay.

#### *The Guéra in the Chadian civil war*

Violence and war have been important in shaping the organization of food production systems in the Guéra in central Chad as far back as human memory goes. In pre-colonial times the area was located between two regional empires, the Ouaddai and the Baguirmi, who used the area as a slave-hunting ground. For safety reasons, the population settled in villages situated on inaccessible slopes and used fields that were located on plateaux and near the foot of the mountains. In the pre-colonial past, the inhabitants fiercely resisted conquest and slave raiding from the surrounding empires of Ouaddai, Kanem and Baguirmi. Before the advent of the French, political organization was limited and most groups did not have any political centralization. Only the Kenga towards Bitkine and the Daadjo who were the last to settle north and northeast of Mongo, the capital of the Guéra, knew some kind of centralized political organization and had the potential to grow into a state-like structure.

When the French colonial government conquered the area and established colonial rule, the region experienced a period of relative calm and slave hunting

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<sup>6</sup> Margay is the name of the mountain spirit in the local cult of the Hadjerai. The name is given by outsiders, as a different name is given to the mountain spirit in local dialects.

and raiding stopped. Villagers either descended voluntarily from the mountains or were forced by the colonial authorities to settle at the foot of the mountains.<sup>7</sup> The colonial administration was always weak in the area and initially the French did not have any administration at all as they sensed that the area was difficult to control without any previous structures in place. First, they appointed *chefs de villages* but in practice this proved difficult because there were too many villages to be overseen by a single French administrator. By 1924, the French had appointed *chefs de cantons*, like in other parts of the colony of Chad. (Rense 2006). Their main tasks were to collect taxes and act as intermediaries between the French administration and the population.

The French had many problems with the *chefs de cantons*. In the first place it was difficult to find the right persons for the post. As most Hadjerai groups did not know central authority, there were no logical candidates and there were constant power struggles. Secondly, the quality of the selected *chefs* was bad. They often misused their newly acquired authority to exploit the population that was opposed to the colonial administration in any case (Rense 2006). They also had to compete with customary leadership based on the Margay cult. The real authority within the villages lay with the Margay priests, who were responsible for rituals centring on the fertility of the land and relations with the spirits of the mountains. In many cases, they were also responsible for land distribution (Fuchs 1970).

The French were ambiguous about the degree of authority they should give the *chefs de canton*. On the one hand they wanted to make use of local authorities because they lacked personnel themselves. On the other hand, these local authorities could not have too much power otherwise they might endanger the colonial administration (Rense 2006).

After independence, the Guéra played a special role in the civil war. One of the trigger events of the civil war took place in Mangalmé in the northeastern part of the Guéra. The people there were fed up with the high taxes they had to pay under the regime of Tombalbaye, Chad's first president after independence. The tax on land was in particular deeply resented in the Guéra and was perceived as a way of dispossessing the Hadjerai of their ancestors' land. In addition, these taxes were often levied several times by exploitative administrators, *chefs de canton* and *chefs de village*. Following the tax riots in 1965, FROLINAT became the main opposition force to the official government and infiltrated the Guéra (Abbo Netcho 1997, Buijtenhuijs 1978).

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<sup>7</sup> Similar settlement patterns can be observed in other mountain areas in the Sahelian zone, such as the Bandiagara Escarpment, the Mandara Mountains, the Nuba Mountains and the Jos Mountains.

Discontent mounted and led to civil unrest and ultimately revolts and armed rebellions in the eastern, central and, later on, northern parts of the country. In historical publications, these rebellions and civil wars are often depicted as national movements but this is only partially true. The struggles at national level had their counterparts at regional and even local level. In several of the cantons in the Guéra, conflicts arose as a result of the control of the neo-traditional power position of the *chef de canton*. In the Niergui *canton*, the *chef de canton* was killed in fighting with rebels that was led by his relatives. The current *chef de canton* remained with the rebel forces and acquired the rank of captain in Hissein Habré's army. After fiercely resisting the rebel forces with his *goummiers*,<sup>8</sup> the *chef de canton* in Baro sided with the rebels and disappeared for three years, returning with troops to re-occupy his post as *chef de canton* under the new government led by Hissein Habré (see de Bruijn & van Dijk 2007). In certain villages, civil unrest led to their splitting up, to the rupture of families, and a general atmosphere of fear and resistance towards any authority (Fuchs, pers. comm.; for a study of these processes in a Chadian region south of the Guéra, see also Pairault 1994; Abbo Netcho 1997).

The rebellion led to religious change over a period of two decades. The Margay priests lost most of their influence and politically were no longer relevant as *chefs de village* and *chefs de cantons* became mediators for the administration's government, which was dominated by Muslim northerners. Their religious power waned as Islam spread in the villages under the influence of various rebel armies. The northern Muslim rebels despised the Margay cult and forced people to abandon it. The role of Islamic scholars in this movement is, however, not clear (Buijtenhuijs 1990).<sup>9</sup> During this period of unrest, many people were killed by the rebels or government troops. Villagers were forced to pay taxes to the rebels as well as the government, and this state of terror forced many to leave the area. Some settled in the south, while others went to N'Djamena. This mobility was a consequence not only of social dislocation but also of poverty, of fear and anxiety, and of conflicts that arose between various groups and within groups (cf. Bennafla 2000).

The first phase of the rebellion is reported as having had a profound impact on the Guéra and its people. What happened in the 1980s is less clear as there was no longer one unified rebel movement but several that controlled the area in succession (see de Bruijn & van Dijk 2007). On top of this, severe droughts plagued the area and led to large-scale population displacements. Apart from

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<sup>8</sup> *Goummiers* were the armed guards of the *chefs de canton*. In fact these were local militia who were in place to back up the position of the *chef de canton*.

<sup>9</sup> Buijtenhuijs (1990: 135-37) quotes extensively the thesis of a Chadian student (Nabi 1985-86) which I could not access but similar stories were collected in the course of fieldwork and also by others in the east of Chad (Doornbos 1982).

sporadic references to the Guéra and its capital Mongo in publications related to skirmishes in the civil war (see Buijtenhuijs 1978, 1987; Lanne 1984), no documented information relates the events or conditions in the area. The information collected by interviewing in the villages more than 20 years after these events took place is confusing. There was a high basic level of violence that caused an outflow of young men and people to the cities. This must have had a considerable impact on food production in the area.

Insecurity and drought stimulated a migratory wave of nomads from the north to the south, and also to the Guéra. They settled in the Guéra as drought refugees, herdsmen for townspeople and as agro-pastoralists clearing land and establishing villages with the intention of staying in the area. As a result, relations with other ethnic groups had to be (re)negotiated. This period was also marked by more tensions between and within different Hadjerai villages (Fuchs 1997, Père Franco, pers. comm.).

#### *Local politics in the Guéra*

The changes at local level due to the civil war and conversion to Islam have been tremendous. In most villages, the political organization has changed from a system of dual control by the Margay priest and the *chef de village* to a single source of power embodied by the *chef de village*. The droughts and war had a huge impact on food production systems. Many villages and people who were resettled during the war for safety reasons or to bring them under the control of the army were killed or fled their villages. Traditional land-use patterns have been extremely disrupted and in combination with the demise of the Margay priest, this has led to uncertainty about land tenure. In one case, a village that had remained more or less in place started to occupy the land of a neighbouring village, which had been almost deserted since the war. In another case, a new land-use system emerged over the course of 25 years under the control of a number of rich male villagers. In a third case, entire villages were resettled in an area between former villages that was under the control of the *chef de canton* and the *chef de village*, whereas land near the former village sites remained under the control of the Margay priest who has since become irrelevant from a political point of view.

At present, the power of the *chef de canton* is extensive in the Guéra. He was, and still is, the first administrative layer to deal with political, administrative and legal problems. Even in civilian cases, such as divorce or adultery, he is often regarded as the administrator, judge and prosecutor. He does so in situations in which rules and norms are derived from several normative and legal frameworks. Given the demise of the Margay cult, the sudden prominence of Islam, the disruption of economic life and the displacement of people after thirty years of disasters, groups and individuals are often confused about rules

and norms. This is compounded by the physical insecurity most people have experienced. Though the situation has much improved since 1990 when the Habré regime was overthrown by Idriss Déby, the threat of physical violence, torture, and intimidation still looms large amid attempts by the population to deal with conflict and administrative and legal problems. On recent visits in 2006, it appeared that insecurity was again on the rise. Cattle thefts and conflicts with passing nomadic pastoralists were increasing in frequency and severity. This could be the result of the appalling security situation in the east of Chad where the Darfur conflict was spilling across the border.

An administrative decentralization process in the Guéra was in sight during our fieldwork period in 2002-2003. Guéra District (Fr: *prefecture*) was originally subdivided into four subunits: Mangalmé, Mongo, Bitkine and Melfi. These in turn were subdivided into cantons headed by a traditional *chef de canton*. Basically, this administrative structure was inherited from the colonial era and the course decentralization took in the Guéra consisted of turning the Guéra as a whole into a region divided into two subunits: Melfi District, and Mongo District. The districts are now being subdivided into smaller sub-districts (Fr: *sous-prefectures*), which coincide, not by chance according to local intellectuals, with the former *cantons*. At present, a number of *cantons* have been transformed into sub-districts. Other *cantons* are still waiting to be turned into sub-districts. No municipalities have yet been formed in the Guéra.

The suggestion embodied by the word decentralization that this process is geared towards democratization is not true. All new officials are appointed by the central government, no elections are held and there are no bodies to represent the population within the new administrative structure. It is extremely difficult to get any reliable information on what is decentralized, why and in which form, which decision-making power has been transferred, how relations are organized with neo-traditional political positions such as the *chef de canton* and *chef de village*, how decision-making power is distributed over the various layers of the administration, and so on.

If the division of decision-making powers and procedures are not clear for the administration, they will be even less so for the population, which is already in a state of uncertainty as to what to expect from the administration. In addition to the *chef de canton*, they are faced with a *sous-préfet*. In their perception, the authorities, regardless of whether they are state-appointed, neo-traditional or elected, are people who want money. In the case of administrative affairs, such as conflicts between villagers or between villages, between nomads and sedentary farmers, or when the intervention of the administration is needed or imposed because people have been fighting and killing each other, large sums of money are tapped from the village economy.

Another element to be taken into account is that *cantons* are mostly based on ethnic divisions. It is not clear in the Guéra whether people living in the same *canton* considered themselves as belonging to one ethnic group when it was established at the beginning of the colonial period. Nevertheless, one of the consequences of the cantonal organization has certainly been that ethnic sentiments have been formed on affiliations to a specific *canton*. The conflicts and re-shuffling of *canton* boundaries during the colonial period created a certain momentum for the formation of ethnic identities. The process has evolved to the extent that the chiefly families in the cantons are in the process of inventing oral traditions concerning the origins of their ethnic group and justifying the present political position held by the chiefly family. The *chef de canton* of Niergui told me, for example, a story about how a piece of wood, brought from Mecca, had pointed at the house of his father to indicate that he should be the leader of the Bidiyo. He also argued that the name Bidiyo indicated that they were related to the Bideyat, the Zaghawa clan to which President Déby belongs. The *chef de canton* of Baro produced a written document in which the various ethnic subdivisions in his *canton* were explained, and why they were different from their neighbours.<sup>10</sup> These ethnic sentiments are again reinforced by transforming the *canton* into a *sous-prefecture*, which the population regards as official recognition of their ethnic identity.<sup>11</sup>

## Food production systems at village level

### *Korlongo*

The village of Korlongo has around 4,000 inhabitants spread over a vast area and organized in large compounds of 5-15 related families. These compounds are surrounded by fields of several hectares where the women cultivate sesame, peanuts and some sorghum and millet. Cattle routes have been made between the fields to allow the livestock to move from the pastures to the compounds where they are corralled each night. Dung is collected from the compounds and used to fertilize the field surrounding the compounds.

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<sup>10</sup> We were shown documents from the colonial era by cantonal chiefs concerning the history of the *canton* and the administrative decisions creating the boundaries of the *cantons* in order to 'prove' that they are a separate group from the others.

<sup>11</sup> In the south of Chad these subdivisions have gone even further. Commentaries in Chadian newspapers argue that this is done to create political divisions in the south so that it will not form a strong opposition to a government dominated by northerners. The commentators also argue that most of the appointed administrators are of northern origin and accuse the government of using administrative decentralization to gain control over the south.



The men's fields are located some distance away from the village, sometimes as far as a three-hour walk. On these outfields they cultivate millet and sorghum and sometimes on the low-lying plains post-rainy season sorghum (*berberé*)<sup>12</sup> too. Given the size of the village, there is a lack of good land for growing crops in the immediate surroundings.

The land-use system among the villages we studied in the Guéra is more complex than that in other villages. There is not only an elaborate system of land allocation between various crop types but also a complicated pattern of cattle routes which requires immense effort to maintain and a high degree of organization at the compound and village level. This level of organization is maintained through a strict organization of village life, with Islam as the basis. The village chief is now the one in charge of land allocation and in cases of conflict works in consultation with the *chef de canton* and the *sous-préfet*. Each of the five quarters has its own *chef de quartier* who is replaced if he does not function well. According to village officials, they have done away with the Margay cult, and the whole village has converted to Islam. In contrast with other villages, no beer is produced in this village although the women produce their own non-alcoholic variant of millet beer. The Dangeleat who inhabit this village are known as hard workers and this is promoted at the local level by contests to determine who is the best and the worst farmer.

The contrast with the situation in 1965, as described by Fuchs (1997: 186ff) and local informants, is enormous. The entire village was located at the foot of the mountains and most of the villagers then still adhered to the Margay cult. There was a dual system of ritual and political control over land allocation but after a large fire reduced most of the village to ashes, it was decided to rebuild over a larger area and compounds were set up on other parts of the village territory.

When the civil war started, the village soon came under the control of a rebel leader who guaranteed it a state of relative security. Unlike other locations, there was hardly any pillaging and the village was not set to fire as other villages in the region were. The decision to convert to Islam was taken as the outside occupants already adhered to Islam and coerced the population to follow suit. The altars of the Margay priest were destroyed and practising the Margay cult was banned (Fuchs 1997: 245). As a result, the impact of the war on the villagers' wealth was limited compared to other villages. Despite the fact that drought ravaged the country and led to many casualties, which was interpreted as the revenge of the Margay, the authority of Islam was no longer challenged (Fuchs 1997: 245-46). The Catholic mission was burnt down and the priests were chased away. A new order was established. After the war and despite all

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<sup>12</sup> Called *muskwari* sorghum in Cameroon (*Sorghum durra*).

the havoc, the population still disposed of assets like livestock, and they were able to develop an entirely new land-use system based on a combination of cereal cultivation and livestock keeping.

One of the most spectacular aspects of these changes is in the spatial allocation of habitation sites, fields and cattle routes. Not only have livestock keeping and cultivation been separated, the village is now also divided into female and male spaces with a division between infields around the compound and outfields for the men in the bush. With a growing population, the internal dynamics of this system are expansive. This population growth is partly reduced by migration to urban areas such as Mongo, the regional capital, where many impoverished former inhabitants of Korlongo were found during our fieldwork, and N'Djamena, the national capital, where a number of migrants live in the peripheral quarters. Contacts between migrants and the village are limited. It would appear that the poorest move away, since they can no longer sustain an existence in the village.

Settlement patterns in the village itself indicate that every now and then parts of compounds split off and move away from the original. The wealthiest parts of the compound seem to remain, whereas the poorest parts move away. Mutual assistance among the families making up a compound is virtually absent and extreme poverty exists amid the relative wealth of people who own cattle and are able to buffer bad harvests by selling livestock.

Though there are few indications of conflicting claims on land, there are important political struggles over village leadership positions. As political leadership is nowadays synonymous with control over the regulation of access to land, these can also be regarded as struggles over land. Changes in land tenure occur quite frequently. People often move their compound from one location to another, away from the densely inhabited centre towards the less densely populated periphery. Fragments of compounds break away from old compounds and set up units of their own and as there are no clear rules for regulating these movements, most cases are regulated through negotiations between individuals, groups and village officials. The position of village officials and their legitimacy has thus become an important subject, as is testified by the frequent changes in these positions.

### *Baro*

Baro is the capital of the Migaame or Djonkor Abou Telfan *canton*. It is located east of the Abou Telfan Mountains at the entrance to a valley cutting into the mountain range. The village of Baro did not exist until the 1950s. It was only when the Catholic mission asked the chief of the village of Douram for a place to settle that he gave them a site on his own fields some kilometres from the village because the village as a whole was squarely opposed to it. The chief was

killed soon afterwards by a bolt of lightning which, it was said, indicated that he had been punished by the local Margay for his deeds. The mission built its site on this compound, and started a school and boarding school there. Even today a large number of highly educated Hadjerai come from this area, having attended the mission school.

When the civil war started, this site was naturally an attractive point for forces opposing the government and soon they were occupying strongholds in the surrounding villages. Several villages refused to recognize the authority of the *chef de canton* any longer and the *chef de village* and the *chef de canton* decided to relocate the villages around the Catholic mission of Baro and concentrate the population in order to create a stronghold for safety purposes. The population was settled on land east and north of the compound of the Catholic mission that bordered a *wadi* (a temporary stream). The former villages were emptied; some of them remaining deserted forever. Due to the population pressure on the new site, people had to change their farming systems from a fallow-based system to a system of permanent cultivation. And for safety reasons, they could no longer stay in cultivation hamlets in the bush.

This alone disrupted former patterns of land allocation. Some villagers' agricultural land was occupied to resettle other villagers and land in the former villages was abandoned and could no longer be used for agriculture due to a lack of safety. After stiff resistance, the village and the *chef de canton* finally had to give in to the pressure of the opposition forces. The chief joined the opposition forces and disappeared. When the rebel forces occupied the village in 1978, adherence to Catholicism was forbidden and services at the Catholic Church were suspended. The remaining animists were pressed to convert to Islam.

After the war, tensions continued between Muslims and Christians but fundamentalist Islam started to become influential. There were political power struggles but by 2001 the *canton* was turned into a *sous-prefecture* and land was set aside for administrative purposes.

So in a time span of two decades, the population was resettled and changed religion, and the village was turned into an administrative centre with an enormously increased population. This has led to complicated interactions between traditional authority over land, state interference in land tenure, and Western and Muslim notions of land ownership.

At present, there are four *loci* of power within the village: the village chief, the *chef de canton*, the *sous-préfet* and the Margay priest. People resort to different centres of power for various sorts of claims. Despite the fact that animism was suppressed and the village where the Margay altar was located no longer exists, the Margay priest still plays a role in the background. He is consulted for advice in secret, and sometimes makes sacrifices on behalf of

other authorities in order to legitimize land claims and promote a good rainy season. In 2004, the current Margay priest returned to his original village to be nearer to the shrine of the Margay, which he stills maintains with the help of some older people. He lives there with his wife and a few grandchildren who help him tend his goats. His son, and successor, still lives in Baro.

In dealings with immigrating Arabs from the north, the dominant role is played by the *chef de canton* and the *sous-préfet*. Numerous Arabs claim access to pasture and fodder resources in Baro. As pastoralists from the north dominate the national government, their demands are difficult to turn down, even when local authorities want to reserve these resources for the local population after a season of bad rainfall. After the poor rainy season of 2002, the *sous-préfet* of Baro decided to close part of the valley west of the capital of the *sous-préfecture* to Arab camel herdsman. This valley belonged to a game reserve, and exploitation was consequently subject to limitations. He wanted to preserve the tree resources in the valley for the local sedentary population. Since the harvest had been bad, tree fruits and leaves would be important for the survival of the population. In addition, there had been a plague of locusts that had destroyed most of the local vegetation.

The Arab camel herdsman protested but the *sous-préfet* stuck to his decision. The Arabs took their case to the *préfet* and even to the president of the republic when he was on his way from the battlefields with the MDJT of Togoimi in the east of the country to N'Djamena and visited Oum-Hadjer in Batha Province. Some weeks later, the *sous-préfet* received a letter from the Office of the President ordering him to annul his decision and admit the Arab herdsman into the valley.

Most of the fields in the vicinity of the village have very poor soils because they are permanently cultivated without the application of any manure. Although some families have disposed of livestock, the total number is far from sufficient to compensate for lost soil fertility. The population of the village – now around 5,000 – needs a much larger area for cultivation but to find virgin soils people have to go further and further from the village. Some families have started to make bush camps during the rainy season and cultivate there. However, a lot of land has been occupied in the meantime by the Arab pastoralists<sup>13</sup> who have migrated into the area over the past decades and have settled in the bush. They have settled on an almost permanent basis and obtained permission from the *chef de canton* to dig wells, which is more or less the equivalent to

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<sup>13</sup> One of the armed groups that dominated the region for a while during the civil war, the CDR, *Conseil Démocratique Révolutionnaire*, consisted mainly of Arabs. This may have promoted the immigration of Arab nomads into the area. However, the precise link between the CDR and the Arab nomads needs to be clarified (see de Bruijn & van Dijk 2007).

having permission to settle permanently. The example discussed above suggests that their presence is increasingly causing problems.

### *Bourzan*

This small village of about 100 families belongs to the canton of Niergui, the homeland of the Bidiyo, another group of Hadjerai. The area was located in the heartland of another opposition group hiding in the mountains. Between two mountain ranges this and a number of other villages were deeply affected by the war. The people were forced to settle in the valley along the road that connects Mongo with Abou Deïa to the south. Nowadays, there are hardly any people left on the plateaux and the mountains. When crossing the mountains to the old Margay shrine, one passes numerous abandoned fields, some of which have been re-opened by their former owners now living on the valley floor. The area has been an important corridor for the transport of military personnel and equipment and a number of battles were staged in the valley. As a result, the population was under constant pressure: entire villages disappeared, inhabitants were forced to move because of the war, and droughts compounded the effects of the war. Some of these people now live in Bourzan, while others have moved to Niergui where the *chef de canton* lives.

The village is extremely poor. Only two of the 100 families have any cattle; the rest only have goats and poultry. The number of female-headed households is also very high because a lot of the men died during the war, or fled to safer areas. Nowadays many men, mainly youth, try to escape poverty and earn money in town. In N'Djamena the men from Bourzan gather in the quarter of Moursal, but this, unfortunately, does not help the women who are left behind in the village. Often their husbands do not come back or they spend their money on another woman and the amenities of urban life and send very little money back.

Unlike the other two villages, systems of land use did not intensify but became more extensive. And because so many people had fled the area, there was sufficient land available to continue operating a slash-and-burn land-use system. Every two to three years a new field is cleared by the head of the family where field millet or red sorghum is cultivated until soil fertility becomes too low or *Striga* begins to cause too much damage to the crop. Then the woman in the household cultivates peanuts or sesame in the field until it is finally abandoned. Abandoned fields are easy to recognize because of the very little vegetation left. When the big trees have re-grown, the field can be put into production once again.

This inefficient land-use system can only be sustained because the inhabitants of Bourzan who remained in the area started to clear land on the territory of neighbouring villages. They pay compensation to a representative of the ori-

ginal population – in the case of a neighbouring village of Bourzan this was an 18-year-old boy. However, it is clear that these people were not able to prevent encroachment on their territory, and that the compensation had a token value only and did not imply the recognition of their authority since they were too weak to resist competing claims from outside.

On the village's own territory, land is cleared in a quite anarchistic way. As long as there is no competing claim, anyone seems to be able to clear land where s/he wants to. In this village, women too may claim land. However, they encounter practical difficulties in making land productive since they cannot or are not allowed to clear land of vegetation. In the past, they could organize a beer-drinking party and invite all the men to cut down the trees in the field. Nowadays, the production of beer and beer-drinking parties are no longer allowed, leaving female-headed households without any means of mobilizing cheap male labour.

A central authority that had the power to regulate access to land has been pushed aside as the people were forced to convert to Islam. Local *marabouts* prevent overt expressions of adherence to the Margay cult and intervene, for example, when beer-drinking parties are organized by older men who are not yet willing to give in totally to Muslim proselytizing. The person who is now formally the Margay priest is no longer interested in the shrine and it is now maintained in secret by someone else.

Curiously, in a recent dispute over frontiers between villages, the Margay ritual has been called to help once again, though Islam is now the official religion. Inhabitants of a village near Bourzan started cultivating the territory of another village without asking the permission of this village. The occupants rejected the authority of the host village by refusing to take part in the Margay fertility ritual at the beginning of the agricultural season. As no decisive rules were specified in Islam or in the laws issued by the government, the *chef de canton* and the *sous-préfet* had no other choice than to resort to the ancient pagan cults with dancing and beer drinking.

## Discussion

The changes in the institutions and regulations controlling access to land and territory have been enormous. Important alterations in land-tenure regulations and the spatial organization of land use occurred during the years of civil unrest. Numerous people were forced to abandon their crop-growing land, which in some cases has now been reoccupied by others. In two of the villages, there is still an acting Margay priest who has some authority, although this is not officially recognized. Muslim *marabouts* and representatives of more fundamental forms of Islam are trying to become involved in village politics but at

the same time, there are government efforts to decentralize the administration, which will lead to more interference in local-level administration. At first sight, it appears that one land-management regime has been replaced by another. However, it is difficult to assess whether old land claims are still regarded as relevant or reasons for contesting present land claims. People have been brought under totally different political systems of control in an extremely short period of time. In the struggle for power during the war, there was a lot of violence and coercion, and the shadow of this time still looms large over local politics and the settling of land claims.

This has led to an enormous diversity in systems of governance over land. In the case of Korlongo, a new system has emerged with a new design in a different ideological and religious framework. In the case of Bourzan, a situation has emerged where authority over land has become very diffuse and is no longer under the control of any central authority or frame of reference. Animist religion no longer functions and Islam does not yet have legitimacy as an ideological framework in the debate on the distribution of land. In the case of Baro, a multiple system of authority has emerged where the administration that has been implanted in the area and is responsible for the resettlement of the village is in charge. However, one also has to deal with the traditional and neo-traditional authorities that derive their power either from the animist religion or from customary authority.

At present there are few overt conflicts. This may be due to the high costs involved in litigations over land. When land claims need settling, they have to be brought to higher level authorities such as the *chef de canton*, the *sous-préfet* or even the court or higher order authorities. Such procedures are expensive and as there is no rule of law in post-war Chad, officials all want their share in the spoils of such conflicts. With the proliferation of administrative layers under the current decentralization efforts of the Chadian government, a lot more resources are needed to satisfy these officials' greed.

It is clear that the civil war and the accompanying violence have influenced the evolution of land rights, the economic situation and the well-being of village populations. This has enormous implications for any policy to combat poverty in remote post-conflict rural areas. Most land-use systems have low levels of productivity. In only one village are investments being made in land, levels of technology are low, and an increase in production can only result from increasing the amount of land under cultivation. It is hard to assess whether people feel they have secure access to land or fear ancient or competing claims will be made once they invest in manure or new technology. At present, the scope for investment in land is limited with the majority being too poor to invest in anything and with a lot of female-headed households struggling to mobilize

sufficient labour just to survive. The sheer poverty of the large majority of the population is the first obstacle to be overcome.

## References

- Abbo Netcho 1997, *Mangalmé 1965, la révolte des Moubi*, Saint-Maur: Editions Sépia.
- Albala-Bertrand, J.M. 2000, 'Complex Emergencies versus Natural Disasters: An Analytical Comparison of Causes and Effects', *Oxford Development Studies* 28 (2): 187-204.
- Barakat, S., M. Chard & R. Jones 2005, 'Attributing Value: Evaluating success and failure in post-war reconstruction', *Third World Quarterly*, 26 (4-5): 831-852.
- Bennafla, Karine 2000, 'Tchad: L'appel des sirènes arabo-islamiques', *Autrepart* 16: 67-86.
- Bird, K. & A. Shepherd 2003, 'Livelihoods and Chronic Poverty in Semi-Arid Zimbabwe', *World Development* 31 (3): 591-611.
- Bird, K., K. Moore, D. Hulme & A. Shepherd 2002, 'Chronic Poverty and Remote Rural Areas', Manchester: University of Manchester, CPRC Working Paper 13.
- Bryceson, D. 2000, 'African Peasants' Centrality and Marginality: Rural Labour Transformations', in: D.F. Bryceson, C. Kay & J. Mooij (eds), *Disappearing Peasants? Rural Labour in Africa, Asia and Latin America*, London, Intermediate Technology Publications, pp. 37-63.
- Buijtenhuijs, R. 1978, *Le Frolinat et le révoltes populaires du Tchad, 1965-1976*, Den Haag/Paris/New York: Mouton Publishers.
- Buijtenhuijs, R. 1987, *Le Frolinat et les guerres civiles du Tchad (1977-1984), la révolution introuvable*, Paris: Karthala.
- Buijtenhuijs, R. 1990, 'Le FROLINAT: Mouvement islamique ou mouvement de musulmans', in: J.P. Magnant (éd), *L'islam du Tchad*, CEAN, Bordeaux, pp. 127-139.
- Buijtenhuijs, R. 1993, *La conférence nationale souveraine du Tchad*, Paris: Karthala.
- Buijtenhuijs, R. 2001, 'The Chadian Tubu. Contemporary nomads who conquered a state', *Africa* 71 (1): 149-161.
- de Bruijn, M. & N. Djindil 2006, 'État nutritionnel et histoire de vie des «enfants de la rue» à N'Djaména (Tchad)', *Psychopathologie africaine* XXXIII (2): 183-212.
- de Bruijn, M. & H. van Dijk 2006, 'Chad', in: A. Mehler, H. Melber & K. van Walraven (eds), *Africa Yearbook 2005, Politics, Economy and Society South of the Sahara*, Leiden: Brill, pp. 201-208.
- de Bruijn, M. & H. van Dijk 2007, 'The Multiple Experiences of Civil War in the Guéra Region of Chad, 1965-1990', *Sociologus* 57 (1): 61-98.
- de Bruijn, M., H. van Dijk & N. Djindil 2004, *Central Chad revisited. The Long-Term Impact of Drought and War in the Guéra*. Leiden: African Studies Centre, [http://www.ascleiden.nl/pdf/seminar\\_120204.pdf](http://www.ascleiden.nl/pdf/seminar_120204.pdf)
- Doornbos, P. 1982, 'La révolution dérapée. La violence dans l'est du Tchad (1978-1981)', *Politique Africaine* 2 (7): 5-13.
- Duffield, M. 1994, 'Complex Emergencies and the Crisis of Developmentalism', *IDS-Bulletin* 25 (4): 37-45.
- Fuchs, P. 1970, *Kult und Autorität, die Religion der Hadjerai*, Berlin: Dietrich Reimer Verlag.



- Fuchs, P. 1997, *La religion des Hadjeray*, Paris: L'Harmattan.
- Goodhand, J. 2003, 'Enduring Disorder and Persistent Poverty: A Review of the Linkages Between War and Chronic Poverty', *World Development* 31 (3): 629-646.
- Hulme, D. & A Shepherd 2003, 'Conceptualizing Chronic Poverty', *World Development* 31 (3): 403-423.
- Kuyvenhoven, A., J. Pender & R. Ruben 2004, 'Development Strategies for Less Favored Areas', *Food Policy* 29 (4): 295-302.
- Kwasi Fosu, A. 2007, 'Fiscal Allocation for Education in Sub-Saharan Africa: Implications of the External Debt Service Constraint', *World Development* 35 (4): 702-713.
- Lanne, B. 1984, *Rebellion et guerre civile au Tchad (1965-1983)*, *Cultures et développement* 16 (3/4): 757-781.
- Lanne, B. 1998, *Histoire politique du Tchad de 1945 à 1958, administration, parties, elections*, Paris: Karthala.
- Lautze, S., J. Leaning, A. Raven-Roberts, R. Kent & D. Mazurana 2004, 'Assistance, protection and governance networks in complex emergencies', *The Lancet* 364: 2134-2141
- Loshe, V. 2002, 'Dezentralisierung im Tschad (1960-2002)', *Verfassung und Recht in Übersee* 35: 548-578.
- Macrae, J., A. Zwi, M. Duffield & H. Slim 1994, *War and Hunger: Rethinking International responses to Complex Emergencies*, London: Zed Books.
- Moore, K. 2001, 'Frameworks for Understanding the Intergenerational Transmission of Poverty and well-being in Developing Countries', Manchester: University of Manchester, CPRC Working Paper 8, <http://www.chronicpoverty.org/resources/cp08.htm>, accessed on March 31 2006.
- Pairault, C. 1994, *Retour au pays d'Iro, chronique d'un village du Tchad*, Paris: Karthala.
- Rense, M. 2006, 'Des contrées ainsi deshéritées. Het Franse koloniale beleid in de Guéra in Tsjaad', Amsterdam: Free University, MA thesis.
- Ruben, R. & J. Pender 2004, 'Rural Diversity and Heterogeneity in Less Favored Areas. The Quest for Policy Targeting' *Food Policy* 29 (4): 303-320.
- UNDP 2006, *Human Development Report*, New York: United Nations Development Programme.
- von Benda-Beckmann, F. 1983, 'Op zoek naar het kleinere euvel in de jungle van het rechtspluralisme', Wageningen: Landbouwhogeschool Wageningen, inaugurele rede.
- von Benda-Beckmann, K. 1981, 'Forum shopping and shopping forums', *Journal of Legal Pluralism* 19: 117-159.
- von Trotha, Tr. 1993, 'Introduction. Concepts et méthode. La dépossession du pouvoir et la 'déresponsabilisation' de l'individu dans l'évolution vers la constitution de l'État et l'acquisition de son monopole de la violence', in: E. le Roy & Tr. von Trotha (eds), *La violence et l'État. Formes et évolution d'un monopole*, Paris: L'Harmattan, pp. 15-33.
- Wisner, B., P. Blaikie, T. Cannon & I. Davis 2004, *At Risk, Natural Hazards, People's Vulnerability and disasters*, London: Routledge.

Yalçin-Heckmann, L., A. Behrends & C. Leutloff-Grandits 2003, *Property Regimes in the Context of War and Displacement: Chad, Croatia and Azerbaijan in Comparison*, Halle: Max Planck Institute for Social Anthropology, Working paper no. 62 (<http://www.eth.mpg.de/pubs/wps/pdf/mpi-eth-working-paper-0062.pdf>)

## Promises of economic development in the Great Limpopo, Southern Africa: Networks and partnerships in transfrontier conservation

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*The Great Limpopo is one of the largest Transfrontier Conservation Areas (TFCA) in the world, covering vast areas of South Africa, Zimbabwe and Mozambique. The TFCA concept is embraced by practically all (international) conservation agencies, with the rationale for support being that the boundaries of ecosystems generally do not correspond to those of nation-states. By arguing that local communities living in or close to TFCAs will participate and benefit economically, primarily through tourism ventures in cooperation with commercial operators, TFCA proponents claim social legitimacy for the project. However, analysis shows that communities first have to maintain rigid standards set by the international conservation authorities, before they are considered fit to participate and benefit from the commercialization of nature. Commercial operators, NGOs and the public sector seem to have a similar agenda with regard to prioritizing conservation ideals before*

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*local communities can enjoy the benefits of economic development.*

## Introduction

The Great Limpopo is one of the largest Transfrontier Conservation Areas (TFCAs) in the world, encompassing the Kruger National Park in South Africa, the Limpopo National Park in Mozambique, as well as the Gonarezhou National Park in Zimbabwe.<sup>2</sup> Practically all international conservation organizations have embraced the concept of TFCAs (Aberly 1999, Wolmer 2003), with the rationale for this support being that ecosystems generally do not coincide with national political boundaries. In addition, significant global threats to interconnected ecosystems and migrating species require large-scale conservation efforts.

Chapin (2004) and Ramutsindela (2004b: 62) have pointed out that growing commercial interest in biodiversity is also driving TFCAs. Especially in the South, they are hailed as opportunities for economic growth through tourism (Wolmer 2003). Public-private partnerships are seen as the main vehicle for this type of economic development (Ramutsindela 2004a, 2004b). In Southern Africa a trend towards private wildlife conservation has been evident since the 1980s (Wels 2003). An OECD report concluded that:

(...) the private sector plays an indispensable role in the provision of biodiversity in the region [of southern Africa] (...) private reserves, conservancies and game ranches protect critical habitat in various regions and play an important role in the protection of highly endangered species including black and white rhino. (...) The comparison of public and private conservation reveals that the total area of privately protected land is growing, while there is little scope for enlarging the network of public protected areas. (Krug 2002: 34)

The African Parks Foundation, established by the late Dutch billionaire Paul Fentener van Vlissingen, is an example that has lately received significant press coverage. It establishes public-private partnerships with governments to manage and finance their national parks. So far 'African Parks is (...) working in six countries, managing eight national parks and is responsible for the stewardship of approximately two million hectares of African wilderness'.<sup>3</sup> McIntosh Xaba & Associates confirm the increasing importance of the private sector but warn,

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<sup>2</sup> Even back in 1926 when the Kruger National Park was established, the South African government tried to persuade the Portuguese colonial authorities to establish a contiguous conservation area on the other side of the border (Mavhunga & Spiereburg 2004).

<sup>3</sup> See [www.africanparks-conservation.com/index.html](http://www.africanparks-conservation.com/index.html), consulted 10 December 2006.

in a commissioned report for the National Land Commission (NLC) and the Association for Rural Advancement (AFRA) in South Africa, that this trend, whilst being promoted as ‘one of the key mechanisms to catalyze rural local economic development’, also carries the inherent risk for communities of ‘negative livelihoods consequences, including false and uneven economic growth, loss of resources, cultural pollution, and increased vulnerability’ (McIntosh Xaba 2003: 1).

TFCA proponents, however, never tire of stressing that local people living in or close to TFCAs and other wildlife areas will benefit from the economic opportunities that TFCAs generate. This provides these large-scale transfrontier conservation efforts with social legitimacy and follows, in principle, the global conservation priority of ‘people and parks’, set out in the wake of the 1982 Bali Declaration and the 1987 report by the Brundtland Commission. Some authors, including Hutton *et al.* (2005: 345), argue that the call to allow local communities to benefit from conservation, as much as the promotion of public-private partnerships in conservation, fits nicely with the neo-liberal ‘New Policy Agenda’ that stressed the need for a reduction in the role of the central state, and assigned an important role to service delivery. The idea was to foster an entrepreneurial spirit among communities, individuals and households to exploit the economic values of conservation resources to ensure both sustainable livelihoods and conservation. Faikir (2001) initially suggested that a community approach to conservation could very well be combined with public-private partnerships. He believed the private sector to be more efficient in exploring and developing local possibilities for economic development and service delivery to local communities. However, three years later, Faikir (2004) warned that powerful (transnational) companies were using the partnerships to appropriate natural resources on a large scale, especially in developing countries (see also Dzingirai 2003, McDermott Hughes 2001).

Looking at the specific case of the Great Limpopo TFCA, Ramutsindela (2004a, 2004b) argues that a number of factors facilitated the establishment of the TFCA: the abolition of apartheid in South Africa, which opened up possibilities for regional co-operation; the end of the civil war in Mozambique in 1992; and the fact that both countries have adopted a free-market approach (see also Carmody 2002, Castel-Branco 2002). He also argues that conservationists promoting the establishment of the Great Limpopo and other TFCAs in the region took advantage of the financial demands being placed at that time on the new democracies of South Africa and Mozambique. Given the pressure put on these governments to redress the historically skewed distribution of resources and services and to address economic growth and poverty alleviation as top priorities, nature could only be conserved if it would pay for itself. This condi-

tion encouraged the privatization of conservation and allowed the private sector to step in (Ramutsindela 2004b: 69).

President Chissano of Mozambique publicly stated that both national governments and the private sector in Southern Africa should establish partnerships and form strategic alliances to promote regional development (Tevera & Chimhowu 2003: 35). Critical scholars, however, argue that these strategic alliances can also be viewed as 'post-colonial discursive constructions that are based on the use of private capital in order to establish zones of influence, without incurring direct costs' (ibid., see also Mudenda 2000). According to Mudenda (2000) and Ramutsindela (2004a, 2004b), there is mounting anxiety within Southern Africa that South African investors are somehow colonizing the transfrontier area.

This accusation is not only levelled against the South African private sector but also against conservation agencies such as SANParks (South African National Parks), DEAT (South African Department of Environmental Affairs and Tourism) and the Peace Parks Foundation (PPF), a South African NGO that is a major promoter and funder of TFCAs in the region. Ramutsindela (2004a) has suggestions about how South Africa came to dominate the Great Limpopo TFCA initiative. In the wake of post-apartheid transformations, SANParks metamorphosed into different formations (ibid.: 69). As a member of the World Protected Areas Leadership Forum, it deployed its former and current personnel to serve as international coordinators of the TFCAs, and some SANParks employees joined the PPF after its establishment in 1997. Ramutsindela thinks that this gives SANParks, and South Africa as a whole, a comparative advantage over the other countries in the region involved in TFCAs. Indeed, South Africa presented itself as a leader in biodiversity protection at the World Summit on Sustainable Development in Johannesburg in 2002 (ibid.: 69).

In this chapter we discuss the opportunities for the communities living in and around the Great Limpopo TFCA, particularly in South Africa and Mozambique, to benefit from transfrontier conservation. We will specifically focus on the impact of public-private partnerships concluded to manage and add economic value to the TFCA. The implementation of TFCAs involves the cooperation of local and international environmental and development NGOs with state agencies and private-sector companies. This kind of cooperation is a growing trend in the field of sustainable development and Edwards *et al.* (1999) argue that it provides NGOs with an opportunity to exert more objectives and interpret sustainable development in the same way (Draper *et al.* 2004, Roué 2003). Furthermore Edwards *et al.* (1999) appear to suggest that NGO influence on development policies is unequivocally positive, which is equally debatable. Whereas Escobar (1995) considers the rise of NGOs in itself as a counterpoint to the dominant neo-liberal discourse, others argue that NGOs contribute to

neo-liberalism (Levine 2002). The NGO sector is not homogeneous and its involvement in TFCA development is likely to have contradictory effects on the position of communities – which are not homogeneous either – and therefore further complicate the issue. As will be demonstrated in this chapter, some communities have received assistance from NGOs in reasserting rights over land within the TFCA. However, this has not meant that the communities had sole control over the use of this land (see also Ribot 2004). Other NGOs have prioritized conservation above communities' rights to land and similar processes can be discerned concerning the role of the private sector in TFCAs. On the one hand, their involvement can generate economic benefits for communities but, on the other hand, the sector's greater experience with negotiating processes and legal contracts can reduce these benefits and diminish communities' control over land.

### The promise of development through transfrontier conservation

The Peace Parks Foundation (PPF) has enthusiastically worked through the media to disseminate the message that transfrontier conservation can offer exciting prospects for economic growth. It was highly successful in lobbying for the establishment of TFCAs and in fundraising (Speets 2001). Perhaps as an illustration of the point made by Edwards *et al.* (1999), the PPF managed to mobilise funding for the Great Limpopo TFCA from a variety of parties including the World Bank, USAID, the German Development Bank *Kreditanstalt für Wiederaufbau*, WWF Netherlands, Novamedia, the Rufford Maurice Laing Foundation, the Dutch National Postcode Lottery, the Deutsche Bank, SAFRI/-DaimlerChrysler and the African Wildlife Foundation. The PPF itself also contributes generously.<sup>4</sup> The PPF and the *Kreditanstalt für Wiederaufbau*, however, are most directly involved in the implementation of the Great Limpopo, especially in Mozambique where they have offered technical advice and personnel.

Since its inception in February 1997, the PPF has stressed the importance of community development. John Hanks, its former executive director, repeatedly stated that 'we feel very strongly about making the communities *our partners* in the growth of tourism' (*italics added*).<sup>5</sup> Its current CEO, Prof. Willem van Riet and the PPF founder, the late Dr Anton Rupert, never tired to stress the importance of community development and participation in TFCAs.

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<sup>4</sup> See [www.sanparks.org/conservation/transfrontier/great\\_limpopo.php](http://www.sanparks.org/conservation/transfrontier/great_limpopo.php).

<sup>5</sup> Clipping from unknown newspaper, 'Mandela approves first Trans-Frontier Conservation Area'.

The high hopes for community benefits are sustained by a number of high-profile cases of communities that have been successful in economically valorizing natural resources that are included – or to be included – in TFCAs. A much-cited example in this respect is the Makuleke case in the Kruger National Park, in the northeastern part of South Africa (see Map 6.1 below), which is discussed in more detail later. Another example is the Richtersveld community in the northwest corner of South Africa. This community has successfully reclaimed land – which happened to be very rich in diamonds – from which it was removed in the 1920s. Not only did the community win its land back, quite exceptionally it successfully claimed back the mineral rights too.<sup>6</sup> Since then the community has established the Richtersveld Community Conservancy, hoping to become part of the envisioned Greater !Gariiep TFCA.<sup>7</sup> Again, this (transfrontier) initiative is being presented as promoting conservation, while at the same time ‘boosting local livelihoods’ and striving towards ‘sustainable development’ (Thornton 2006).

The success stories have fuelled the belief that transfrontier initiatives do not only foster nature conservation but also contribute to the economic development of the local population. For this to happen, partnering with the private sector is considered crucial in order to operationalize the assumed tourism potential of TFCAs. This partnership idea can be traced back to the early days of the CAMPFIRE programme in Zimbabwe when local communities were stimulated to form partnerships with hunting operators to get hunting started in some of the country’s more marginal Communal Areas. The WWF supported CAMPFIRE wholeheartedly and produced two papers explaining how Rural District Councils with the appropriate authority to manage the wildlife on their communal land could form partnerships with the private sector through joint ventures (Jansen n.d., 1989). Safari hunting is the first activity mentioned in the document for which a joint venture could be considered (Jansen n.d.: 1). Dzingirai (2003) has heavily criticized this partnering trend in conservation as it could marginalize communities even more. He argues that:

the new environmental management partnerships emerging in southern Africa’s countryside (...) not only fail to deliver benefits to villagers, more importantly, they curtail the long-established rights to land and other natural resources of indigenous communities. While villagers may engage in a battle to recover these rights, it is a struggle in which the odds are stacked against them, and which the private sector and its partners are set to win (ibid. 2003: abstract).

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<sup>6</sup> Business Report, 14 October 2003, [www.busrep.co.za/index.php?fArticleId=260221](http://www.busrep.co.za/index.php?fArticleId=260221), consulted 10 December 2006.

<sup>7</sup> See [www.richtersveld.net/BROADER.htm](http://www.richtersveld.net/BROADER.htm), consulted 10 December 2006.



McDermott Hughes (2001: 593) concurs: 'Ultimately, CAMPFIRE has come to denote an expensive public-private partnership for latter-day colonization'. Aided by state and donor funding, conservationists and private-sector partners have managed to obtain access to land that hitherto had been exclusively reserved for small-scale farmers, the latter running severe risks of having to give up farming for a relatively small share of the benefits from eco-tourism that often does not compensate for the loss of income from farming.

While McDermott Hughes and Dzingirai discuss the fate of communities losing land to conservation, South African communities are trying to do the opposite and reclaim land in conservation areas. After the transition in 1994 to a democratic government, communities that had been displaced under discriminating legislation, such as the Group Areas Act of 1950, could file a land claim. Such claims are believed to greatly strengthen the bargaining power of local people relative to that of the conservation authorities, increasing their chances of extracting benefits from the parks – including those that are or will become part of TFCAs. Some of these were established by way of forced removals. In 1996, the South African Minister for Land Affairs announced that land claims were one of the strongest mechanisms for correcting the balance of power between communities and conservation authorities (Reid 2001: 138). Such claims were facilitated by the Communal Property Association Act of 1996 that allows communities to set up a Communal Property Association through which they can acquire, hold and manage property communally (*ibid.*).

*South African Communities and the Great Limpopo TFCA:*

*The Makuleke Land Claim*

One of the most widely publicized claims – and one that is often cited by both SANParks and the PPF as proof that communities are benefiting from the Great Limpopo<sup>8</sup> – is that lodged by the Makuleke community. In May 1998 the Makuleke and SANParks announced that they had reached a negotiated settlement of the Makuleke's claim for the restitution of what was then known as the Pafuri Triangle, the northernmost section of the Kruger National Park. This area is quite central to the Great Limpopo, bordering on all three of the countries involved in the TFCA. The community was able to prove that it had occupied the area until August 1969 when it was removed by the then Department of Native Affairs to an area 60 km to the south and only 6,000 hectares in size (Harries 1987). After eighteen months of tough bargaining, the Makuleke were successful. At the official signing ceremony in Makuleke village, the new (black) CEO of SANParks announced the settlement was a

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<sup>8</sup> See for example, <http://www.peaceparks.org/new/news.php?pid=161&mid=429>, *The Star*, 6 August 2003, or Koro (2005).

‘breakthrough for South African conservation’ and promised that something like the Makuleke removal would ‘*never again take place*’. A new paradigm, he said, had been established within SANParks that aimed at transforming its relationship with its neighbours.



Map 6.1 Great Limpopo Transfrontier Park

Source: GLTP website

This celebrated statement, however, obscured the conflictual process that preceded the settlement. It started with the introduction of the Transform (Training and Support for Resource Management) Project, a joint venture between the Department of Land Affairs and the *Deutsche Gesellschaft für Zusammenarbeit* (GtZ), a German development agency. The project was introduced in 1995 to challenge the control that the National Party still held over the Environment Affairs and Tourism portfolio and hence SANParks (Steenkamp 2000). As such, it provided the Makuleke with possible allies in their struggle with SANParks to regain control over the land they claimed in the Kruger. Transform supported the Makuleke Ecotourism Project, a proposal whereby the community would establish a game lodge on the disputed land in partnership with the private sector. At the time, the Makuleke land claim had not been settled and the land was still under the stewardship of SANParks.

In 1996 the nature of Transform's support for the Makuleke project changed dramatically. In what was described as a 'positive move' by the GtZ project manager, SANParks became part of the Transform steering committee. Within the multi-stakeholder format used by Transform, which did not make a distinction between primary and secondary interest groups, it was possible for SANParks to participate directly in the planning of the projects affecting them. The result was a reorientation of the GtZ funding away from the Ecotourism Project towards a range of alternative community development projects. Notable emphasis was placed on the development of a buffer zone along the western periphery of the Kruger, using Makuleke land. This would restrict the community's possibilities of using part of the limited land that had been allocated to them after their eviction from the Kruger. If SANParks's influence within Transform on the basis of these outcomes were analyzed, it would seem evident that the NGO and the public sector joined together in arguing against the local community along the lines of SANParks's views on the role of communities and conservation.

The issue of the buffer zone clearly reflected SANParks's interests and was repeatedly rejected by the Makuleke. Despite growing tensions, the Makuleke continued to participate in the GtZ-Transform steering committee, motivated by the impression that they could still benefit from the process. This expectation gradually disappeared as a result of logistical difficulties experienced by GtZ in making the promised funding available. At the same time, GtZ-Transform was secretly having discussions with SANParks about ways to resolve the land claim. Having become suspicious, the Makuleke eventually requested that GtZ keep out of their land claim.

Unlike GtZ-Transform, which sought to reduce tensions between Makuleke and SANParks through the multi-stakeholder platform, the Land Claims Commission recognized and exposed the conflict of interest between the Makuleke

and SANParks and structured the decision-making process accordingly. A rigorous distinction was made between Makuleke and SANParks interests, a step that clearly undermined existing power relations between the two and strengthened the community's overall bargaining position. A particularly energetic land claims commissioner further ensured that the Makuleke claim was taken to its logical conclusion. The Commission intervened directly at a community level by putting the Makuleke CPA (Communal Property Association) in place as the vehicle for community ownership of the land claimed. The CPAs were originally designed to replace the politically discredited 'tribal authority' system from the apartheid era and to democratize land ownership and community development. The objective was to set in place accountable, transparent and representative institutions and thereby 'transform' community-level power relations. In Makuleke there was a good deal of overlap and cooperation between the CPA and the traditional authorities, though there was conflict as well.

The breaking of GtZ-Transform's hegemony made possible the emergence and establishment of an NGO-like structure in 1997 called the Friends of Makuleke. It consisted of four freelance consultants (including one of the authors of this chapter) who had developed a long-term relationship with the Makuleke preceding the initiation of the Transform process. From 1997 onwards, the Friends of Makuleke provided the community with technical expertise in the land claims process, supporting the community's Legal Resources Center attorney.

Although the Makuleke land claim was successful (see Steenkamp 2000, 2001), a number of conditions were attached to the restoration of land ownership. The land had to be used for conservation purposes for the next 99 years, no mining, prospecting, housing or agriculture would be permitted and no development was allowed without an environmental impact assessment. SANParks retained the right of first refusal<sup>9</sup> should the land ever come on the market. Importantly, the Makuleke entered into a twenty-five-year contractual national park agreement with SANParks. To manage the contractual park, a Joint Management Board was established consisting of three SANParks and three community representatives. SANParks is responsible for all of the management costs of the Makuleke part of the park for an initial period of five years and after that the Makuleke community's CPA will be liable for 50% of these costs (Steenkamp 2000: 143, Steenkamp 2001). These conditions amount to a compromise between the Makuleke and the state, encouraged by a statement made by the then Minister of Land Affairs that he was willing to support

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<sup>9</sup> The right of first refusal in this case means that if the land were to come up for sale, it would be offered to SANParks first, and only be sold to another party if SANParks was not interested in it.

the Makuleke claim as long as they were willing to compromise and not be 'greedy'. In other words, a neo-liberal discourse and rhetoric is being used to try and stimulate local entrepreneurialism and commercial activities on the one hand. On the other hand it is a neo-liberalist approach to which conditions apply for the local communities. To date, we have not come across any empirical evidence in this case that similar or other conditions apply to private-sector partners.

The Makuleke's *quid pro quo* for accepting the restrictions was that the CPA was given the right to make sustainable use of the land's natural resources, including hunting. They also gained exclusive commercial rights to the land, a right that they are able to exercise independently of SANParks. This is expressed by a clause in the agreement that specifies that a commercial decision by the Makuleke CPA is considered a decision by the Joint Management Board. SANParks is able to object only to the environmental dimensions of any proposed activities and may engage in the process through an environmental impact assessment. This places the Makuleke in effect on the same footing as the private game reserves adjacent to the park (Steenkamp 2000, 2001).

One of the first steps taken by the Makuleke was to establish a highly profitable hunting camp on the land, which they used for a limited number of high-profile hunts per year. This was a logical step in the commercialization of their land claim: hunting concessions are the biggest money-maker in the wildlife tourism industry (Roth & Merz 1997). It was an unusual step in the sense that in terms of the IUCN category of a national park, of which the Makuleke claim is a part, hunting is strictly prohibited.<sup>10</sup> This has remained an issue that SANParks is not happy with (personal communication, Steenkamp). As a second step, an agreement was made with a private-sector partner to develop a game lodge, The Outpost, on the western section of their land. Recently, however, the Makuleke signed a surprisingly unfavourable agreement with another safari operator, Wilderness Safaris. The duration of this concession is forty-five years, a very long timeframe considering that the contract does little to hold the private-sector partner to a certain level of performance and does not contain a clear exit clause that would allow the Makuleke to withdraw from the relationship if it became too unprofitable. The contract also contained a clause that effectively prevents the Makuleke from hunting on the land, as is expressed by one of the Makuleke representatives on the Joint Management Board:

We have 24,000 hectares, we had all the rights, including the right to hunt. I am not afraid to say that the contract stopped the Makuleke from hunting. It is not

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<sup>10</sup> See [www.unep-wcmc.org/protected\\_areas/categories/index.html](http://www.unep-wcmc.org/protected_areas/categories/index.html), visited 10 December 2006.

SANParks that stopped us, but it is the way they develop the contract with the private sector. We were making a lot of money with hunting (...) There are many mistakes in the contract (...) [These companies have] been in business for a long time, they are negotiating with communities who have very little experience. You need very good advisors to compete with these big guys. Somewhere, somehow the community overlooked a few things in the contract.<sup>11</sup>

The community did, however, have access to competent legal advisors. Responses from former Friends of Makuleke members were mixed. One felt that this was the best deal that the Makuleke were likely to get; another advised them not to sign the agreement as it stood, but this was one day before the signing ceremony and the advice was not followed.

The game lodge currently generates less than what was brought in by the hunting operation and it remains to be seen whether the higher projected income figures will eventually be achieved by Wilderness Safaris. Until such time, it is hard to judge whether the decision made by the Makuleke was the right one. In the interim, however, it is difficult to avoid the impression that the private sector had more experience with the negotiation of contracts in this sector than the Makuleke legal advisor did, and that the private tour operator and SANParks had similar (conservation) priorities in preventing hunting operations within the boundaries of a national park. The advantageous conditions applied to Wilderness Safaris with regard to the length of lease and conditions on their level of performance could be interpreted from this angle as leverage granted for cooperating with SANParks.

Dealing with national conservation agencies and policies is not easy for communities, as this case shows. The state is inconsistent in its approach to the communities, and some forces within the state were strongly opposed to the Makuleke claim. Furthermore, the alliances the communities concluded with development agencies and the private sector have generated mixed results. They variously helped the Makuleke secure their land and resource-use rights such as hunting, but also oversaw the signing of an agreement with the private sector that reduced these rights. In the course of negotiations, the planned transfrontier park was repeatedly used by SANParks as a reason for the state to retain control over the land. Despite land ownership by the Makuleke, the community is not participating in the management structure of the overall TFCA. At a workshop on tourism in the Great Limpopo TFCA in April 2005 at Wits Rural Facility in South Africa, a representative from Makuleke addressed the audience, which included the TFCA's international coordinator and a SANParks representative:

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<sup>11</sup> See [www.peaceparks.org/profiles/kruger.html](http://www.peaceparks.org/profiles/kruger.html)

The way you present the plans, it appears that the communities are only subjects. But Makuleke have land, we have a contractual park, so we are part of the [Great Limpopo TFCA]. But we are not part of the management board.

The creation of a joint management structure for the TFCA would, he claimed, further dilute community representation.

If there is a representative of the joint management board of our land in the [TFCA] board, that does not mean that the community is represented, it is the management structure of our conservation area that is represented. There are lessons to be learned. We must ensure that communities are represented, and that this area is not dominated by the elite. Who benefits who[m] between the communities and the Great Limpopo?

### Mozambique: Freeing up space for investors

The situation of the people living in the Mozambican part of the TFCA looks much grimmer. According to the initial Mozambican conception, the Great Limpopo TFCA was meant as a multiple-use area, supposedly to help impoverished communities, especially those in the communal areas in Mozambique.<sup>12</sup> Looking at the map accompanying the objectives (see Map 6.2) it is clear that the communal areas enclosed in the TFCA plan were initially much larger than the protected areas included, namely Coutada Sixteen, now the Limpopo National Park (adjacent to the Kruger National Park), the Zinhave National Park and the Banhine National Park combined. However, the main focus is now on Coutada Sixteen, which was a Wildlife Utilization Area and has about 27,000 people living within its borders. Soon after the signing of the agreement on the TFCA, Coutada Sixteen was declared a national park but this was done without much thought as to what it would mean for the communities living on the land concerned.

A World Bank consultant, who was initially involved in the TFCA remarked:

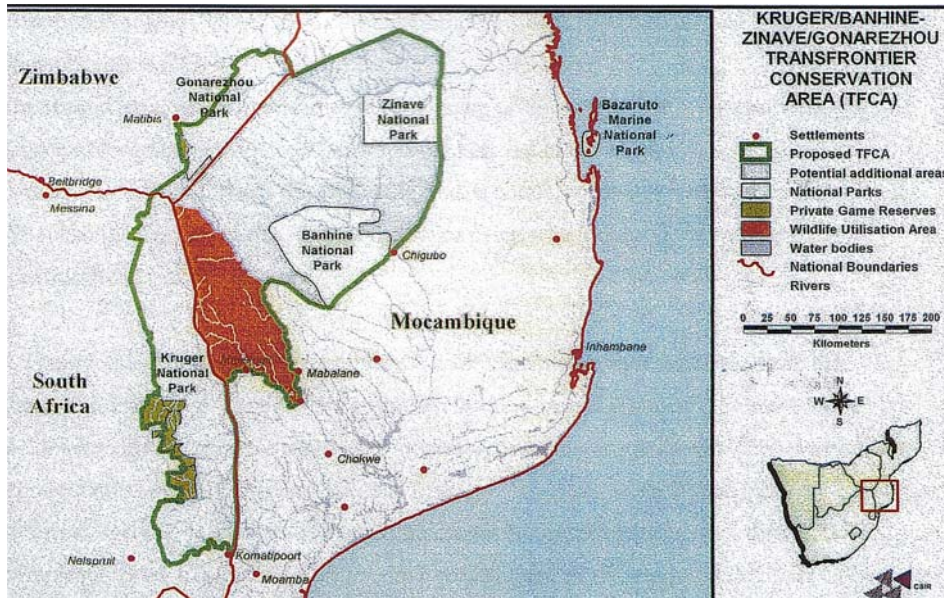
This was supposed to be a transfrontier *conservation area*, now it is becoming a transfrontier park, that is not the same thing, that is not what we had agreed upon. This was supposed to bring benefits to the local communities, but the way it is going now it will not.<sup>13</sup>

The PPF brochure celebrating the establishment of the Great Limpopo reflects the change in policy:

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<sup>12</sup> Presentation by and interview with a representative of the Makuleke community at a workshop on tourism, 14-16 April 2005, Wits Rural Facility, South Africa.

<sup>13</sup> Interview at the World Bank, Maputo, 6 August 2003.



Map 6.2 Original map of the Transfrontier Conservation Area

Source: Peace Parks Foundation

(...) all a Transfrontier *Park* means is that the authorities responsible for the areas in which the primary focus is wildlife conservation, and which border each other across international boundaries, formally agree to manage those areas as one integrated unit according to a streamlined management plan. These authorities also undertake to *remove all human barriers* within the Transfrontier Park so that animals can roam freely. [italics added]

A member of the Mozambican National Steering Committee and the Technical Committee for the Great Limpopo concurred that what they agreed upon was something ‘completely different’ from what they had worked so hard to establish for five years.<sup>14</sup> The World Bank consultant explained the shift in focus as follows: ‘The South Africans were becoming impatient. They were anxious to show that NEPAD<sup>15</sup> was working, and the transfrontier park would be a concrete example of interregional cooperation, so they needed it.’<sup>16</sup> At least some South African participants and observers agree that ‘massive

<sup>14</sup> Interview at Endangered Wildlife Trust (EWT), Maputo, 2 February 2001.

<sup>15</sup> New Economic Partnership for African Development. The South African government was an important driving force in forging this pan-African partnership.

<sup>16</sup> Interview at the World Bank, Maputo, 6 August 2003.



political pressure' was being placed on the TFCA implementers to speed up the process:

I think if asked in a sensitive way that the Mozambican and Zimbabwean senior people involved in the process will admit that the Technical Committee was not allowed the time to implement the 'Action Plan' or timetable that they had initially developed and which the Ministerial Committee had slashed in half. (Senior conservation official, July 2005)

Representatives of various organizations directly and indirectly involved in the implementation of the TFCA<sup>17</sup> felt that the Great Limpopo had also become a matter of prestige for the PPF: it would be the largest TFCA on the continent and become a world famous park. A great deal of pressure was therefore put on the various partners to make it happen and, in the process, the communities lost out. 'Community issues kept falling by the wayside due to the massive political pressure for tangible progress to be seen,' said a senior conservation official in July 2005. With the release of the first group of elephants into Mozambique, for instance, 'no single official effort was made by any of the governments to inform the local communities about the plan to translocate elephants right up to the day that the first group of twenty-five elephants were taken to Mozambique' (ibid.).

The majority of the people in the park live along its eastern and southern boundaries. Seven villages with a total of about 7,000 inhabitants are located along the Shingwedzi River, which transects the southern part of the park. A study commissioned by the PPF concluded that the banks of the Shingwedzi River also hold the greatest tourism potential.<sup>18</sup> On the map accompanying the plan (see Map 6.3), the villages along the river have been replaced by luxury lodges, and only one community lodge has been foreseen along the park's eastern border. A tender was put out on the Limpopo National Park's website<sup>19</sup> inviting tourism investors to bid for concessions on parts of the area along the river. The closing date for bids was August 2006.

Both of the government officials in the Ministry of Tourism who are responsible for the TFCA and representatives of the *Kreditanstalt für Wiederaufbau* insisted that no forced relocations would take place.<sup>20</sup> But at a press conference on 23 May 2005, the head of the TFCA's Project Implementation Unit in Mozambique repeated that resettlement would not only benefit the park

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<sup>17</sup> Interviews in Maputo, April/May 2005. Perhaps as an indication of the power PPF is felt to have, none of the sources wanted to be quoted on this.

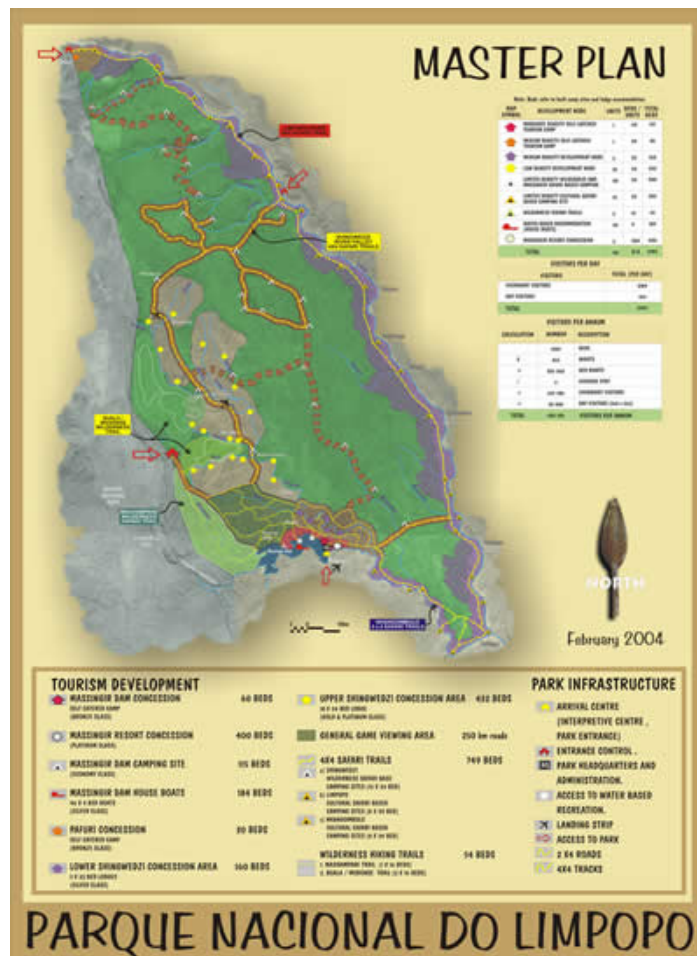
<sup>18</sup> Interview with PPF staff, April 2005, and interviews with members of the Project Implementation Unit of the Limpopo National Park, May 2005.

<sup>19</sup> See [www.limpopopn.gov.mz](http://www.limpopopn.gov.mz).

<sup>20</sup> Interviews at the *Ministerio de Turismo* and German Embassy, Maputo, June 2002 and May 2005.

but also the communities. He announced that the first hundred families would be resettled in October 2005 and remarked:

It is hoped that this will lead the remaining families to understand that the park will not damage their interests but will actually improve their lives. Families in this area can never rely on farming to escape from poverty: the soils are poor and the semi-arid climate guarantees that yields from agriculture will always be low.<sup>21</sup>



Map 6.3 Limpopo National Park tourism plan

Source: Limpopo National Park website

<sup>21</sup> Press statement published by the Smart News Network International, [www.bernama.com/cgi-bin/ssn2/list\\_item.cgi?peserta/mozambique/mo2505\\_2.txt](http://www.bernama.com/cgi-bin/ssn2/list_item.cgi?peserta/mozambique/mo2505_2.txt), consulted on 27 May 2005.



*Photo 6.1* Sign indicating where villagers from Macavene will be resettled  
[Photo: Marja Spierenburg]

A recent visit to some of the villages along the Shingwedzi River revealed that this was not how most community members judged their situation. When asked whether she would leave the area voluntarily to move to somewhere along the Elephants River south of the park as proposed by park management, a woman responded: ‘We do not want to die from hunger over there, we do not want to leave the good soils here.’ Similar sentiments were expressed by many of the people interviewed. A report by a consultant on possible resettlement areas concurs:

They utilise alluvial soils in the Shingwedzi valley which have higher agricultural potential than generally occurs in the region. They have access to vast areas of grazing for livestock and to other forest resources (...) The villages have access to reasonable supplies of water in nearby rivers. (Impacto 2005: 1)

Despite their objections, many people fear that they will be indirectly forced to move because of restrictions imposed by the park. They can 'stay and starve', as a consultant put it.

According to national parks legislation in Mozambique, cultivation inside national parks is forbidden. The communities along the Shingwedzi are allowed to continue farming the fields they had cleared before the declaration of the park but they are not allowed to clear new ones. Most farmers rotate their fields every few years and are worried what will happen when their current fields lose their fertility. Furthermore, accessing the emergency pastures used in times of drought has become illegal. Fishing is no longer allowed, nor is subsistence hunting. The park is also impinging on another livelihood strategy, namely illegal migration to South Africa to look for (temporary) work on commercial farms and as servants in communities living near the Kruger National Park. According to police officers in the Guarda Fronteira,<sup>22</sup> the increased presence of wildlife and the fact that people will now have to cross two wildlife areas (including the Kruger) with predator populations will deter possible migrants, as will the increased anti-poaching patrols.

The first elephants translocated into the Limpopo National Park found their way back into the Kruger not long after their release. To keep the elephants in Mozambique, a fenced sanctuary was created in the south of the park where the translocated animals could acclimatize. As long as the animals remain inside the fenced area, community members are unlikely to object to their presence. However, the southern part of the sanctuary bordering on the Massingir Dam is not fenced and when water levels are low, elephants and lions can cross into the park and go to the Shingwedzi River.<sup>23</sup> The increased anti-poaching patrols have also resulted in an increase in the numbers of smaller ungulates. As a result, the communities are increasingly suffering from damage to their crops by wildlife and many have lost cattle to reintroduced predators. The situation deteriorated for the villagers with the opening of the newly constructed Giryondo Gate border post in the park in December 2005.<sup>24</sup> As the first tourists used the border post – mainly as a shortcut to the Mozambican coast – the PIU decided to dismantle the fences round the sanctuary, arguing that tourists would not want to see animals fenced in. Defending this action, which proceeded again without community consultation, a PIU member remarked that 'the fence was to protect the animals, never to protect the people'.<sup>25</sup> A village headman com-

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<sup>22</sup> Interview, Massingir, 12 May 2005.

<sup>23</sup> Interview with a member of the Project Implementation Unit of the Limpopo National Park, Massingir, 12 May 2005.

<sup>24</sup> The official celebration of the opening in the presence of the three heads of state, Presidents Mugabe, Mbeki and Guebuza, took place on 16 August 2006.

<sup>25</sup> Interview in Maputo, January 2006.

plained that 'whenever we report damage to our crops and the loss of our cattle to the people from the park, nothing is done but whenever we try to defend ourselves against the wild animals they are there within a minute to arrest us.' The communities receive no compensation for wildlife damage, as one of the park's employees remarked: 'This is now a national park, agriculture and cattle-keeping are officially forbidden in a park, so how can we compensate for damage to things that are not allowed?' As a result of the restrictions and increased damage, many people living along the Shingwedzi now believe that resettlement is inevitable. The village headmen formulated it this way:

They say that resettlement is not forced but that is not true. We are forced because we are no longer allowed to live our lives as before, we can no longer cultivate where we want, we can no longer take our cattle out to graze. Yes, we agreed to move but we did not do so freely.

By contrast, the Limpopo National Park's official website states that: 'Fundamental to the concept of the Limpopo National Park is the requirement that it contributes to the welfare of the people of Mozambique through sustainable eco- [a]nd cultural tourism development.' As in the Makuleke case, attempts have been made to establish links with NGOs to assist the communities in their struggle to maintain control over their land. A number of national and international NGOs active in the area have organized themselves in a forum, which now has a representative in the Consultative Committee for Resettlement that was established by the TFCA Project Implementation Unit. Through its contact with a German NGO, the forum has recently secured EU funding to facilitate coordination and better serve the communities.

However, the NGO representatives feel that because the area has already been declared a national park, it is impossible to help local people retain land rights in the park. As one of them remarked:

It is now a park, what can we do? We cannot touch the park, we will not touch the park, it is too sensitive. All we can do is to make sure that the resettlement is done in a proper way, to ensure that people are sufficiently compensated.<sup>26</sup>

Under the land laws gazetted in 1997, all land in Mozambique ultimately belongs to the state. Both communities and individuals can register land and obtain titles for the use and enjoyment of the land (see Norfolk 2004). To register land, communities have to convince the authorities that they have been occupying an area for a considerable period of time. In the case of the communities along the Shingwedzi, government officials from the Ministry of Tourism have repeatedly disputed the claim by these communities that they 'belong' to the area. As a result of the civil war, many people fled to South Africa, only to

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<sup>26</sup> Interview with a member of the NGO Forum, May 2005.

return to Mozambique after the ceasefire in 1992, while others moved around within the area, changing residency to escape the violence. Yet, regardless of the conflicts about whether or not the communities belong, the state can decide unilaterally on the conversion of land use if this is deemed to be in the public's interest (ibid.). In this case, linking up with NGOs can only assist communities in moderating the impact of resettlement. As one community member put it:

The first time they came they told us that we were going to benefit from the park. But now what is happening is that when we report to them about animals nothing is done to help us. So now we doubt whether they are really going to help us when we are there [in the resettlement area].

Many villagers are not prepared to stay until life in the park becomes impossible. Cross-border migration has increased as a form of resistance to resettlement; and one could even speak of 'conservation refugees'. More than twenty families out of a total of about a hundred families from Massingir Velho have 'returned' to South Africa. Most of these families were living in South Africa during the civil war and some of their members returned regularly to look for temporary jobs. Such is the fear of lack of possibilities in their new area that these families have opted to return to South Africa 'permanently', that is, until they are discovered by the South African authorities. It can be concluded that, despite the rhetoric of the Great Limpopo bringing development



*Photo 6.2* Family in Massingir Velha  
[Photo: Marja Spierenburg]

to local communities, the TFCA has so far not yielded a rich harvest in (opportunities for) local development, especially now that it has become a park instead of a conservation area.

### Concluding remarks

This chapter analyzed the sometimes contradictory consequences of the development opportunities for local communities of transnational cooperative processes involving three countries, and a wider network of national and international NGOs, private companies and development agencies in the context of the establishment of the Great Limpopo TFCA. While the TFCA is opening up the borders to wildlife, tourists and investors, communities are becoming increasingly geographically bounded, even though their livelihood strategies often include border crossings. Yet in South Africa, the ideological binding of communities to certain territories has also facilitated the land claim process of the Makuleke. Nevertheless, the Makuleke negotiated the claim with state agencies that were not unanimous in their response, trying to reconcile - or perhaps to compromise - promises to redress past injustices (by the Land Claims Commission) with current conservation goals (by SANParks). The alliances the Makuleke have chosen, with NGOs and development agencies, to further their case, will have varying effects on their empowerment. In the end, the Makuleke managed to secure rights of access to land within the TFCA through their alliances but did not obtain (complete) control over the way they can use the land commercially. Apart from being a paradox in terms of the spirit of neoliberalism that seems to drive (part of the efforts towards) transfrontier conservation, it is also a form of disempowerment. Though their links with NGOs strengthened their negotiating capacities, they struggled to define a favourable relationship with the private sector and ended up signing a contract that significantly reduced their control over their part of the TFCA. Here it seemed that agendas of the public sector, i.e. SANParks, and the private sector, i.e. a tour operator, strengthened each other in enforcing the strict and categorical conditions towards conservation in a national park on the Makuleke community.

The communities on the Mozambican side of the TFCA are clearly in a much worse position. They have little to no bargaining power and though the official policy is not to relocate them forcibly, the restrictions on land-use options and the increased presence of wild animals in the area are threatening their livelihoods. The change of status of the area they live in, from a Wildlife Utilization Area to a National Park, has undermined their right to the land. Since most development and land rights organizations find it difficult to chal-

lunge the state or the PPF on this issue, the communities' alliances with NGOs could serve only to improve their compensation once they have been resettled. Some, however, have opted to cross the border into South Africa.

Both cases draw our attention to the dangers of treating the NGO world as a single body with similar goals and priorities. The same seems to hold for the communities and national and (inter)national private-sector companies involved in the establishment of the Great Limpopo: assuming they constitute single bodies or fit in simple categorizations does not offer much in terms of analytical depth or an understanding of the intricate dynamics of the interconnected configurations in local contexts. In the multi-sector alliances that communities form, attention should be paid to the power relations between the different stakeholders, resulting *inter alia* from differences in access to funding and publicity.

Partnerships between the state, communities, NGOs and the private sector in development in general but also in community-based natural resource management (CBNRM) are advocated as important strategies towards development. However, in CBNRM, as we have shown in this chapter, large tracts of land that are – or are expected to become – under conservation, like the Great Limpopo TFCA, are effectively being brought under the control of such partnerships, which in some cases are dominated by non-state organizations and institutions. Despite the claims of conservation bodies and the private-sector parties involved that this leads to economic development, communities are being marginalized and are, in effect, denied full development potential. Local communities are under-respected, under-skilled, and under-resourced actors in this power game.

What in both cases appears to be a persistent and also powerful tool in enforcing decisions and choices from almost all the parties involved is the categorization of land under conservation as 'national park'. In the case of the Makuleke, it has meant that the commercially lucrative business of sport hunting was contractually eliminated. In Mozambique, the concept of a national park has meant that although people will not be forcefully removed from the park, they are left with no other option – in terms of livelihood opportunities – than to leave. The park concept has proven its resilience over time (Jones & Wills 2005), with its aim of preserving wildlife and their natural habitat, and of excluding humans. This idea still resonates today and it often does not match – in spirit or in practical execution – the rhetoric within transfrontier conservation circles of catalyzing economic development to the benefit of those living in or close to the parks.



## References

- Aberly, D. 1999, 'Interpreting Bioregionalism: A Story from Many Voices', in: M.V. McGinni (ed.), *Bioregionalism*, London: Routledge, pp. 13-42.
- Business Report, 14 October 2003, [www.Busrep.Co.Za/Index.Php?Farticleid=260221](http://www.Busrep.Co.Za/Index.Php?Farticleid=260221), visited 10 December 2006.
- Carmody, P. 2002, 'Between Globalisation and (Post)Apartheid: The Political Economy of Restructuring in South Africa', *Journal of Southern African Studies* 28 (2): 255-75.
- Castel-Branco, C.N. 2002, 'Economic Linkages between South Africa and Mozambique', Report prepared for the South African Office of the UK Department for International Development.
- Chapin, M. 2004, 'A Challenge to Conservationists', *World Watch Magazine* November/December: 17-31.
- Draper, M., M. Spierenburg & H. Wels 2004, 'African Dreams of Cohesion: Elite Pacting and Community Development in Transfrontier Conservation Areas in Southern Africa', *Culture and Organization* 10 (4): 341-53.
- Dzingirai, V. 2003, 'The New Scramble for the African Countryside', *Development and Change* 34 (2): 243-64.
- Edwards, M., D. Hulme & T. Wallace 1999, 'NGOs in a Global Future: Marrying Local Delivery to Worldwide Leverage', *Public Administration and Development* 19 (2): 117-36.
- Escobar, A. 1995, *Encountering Development: The Making and Unmaking of the Third World*, Princeton, NJ: Princeton University Press.
- Faikir, S. 2001, 'CPPPs: A Way Forward in CBNRM', *IUCN Policy Think Tank*, No. 5.
- Faikir, S. 2004, 'Globalisation and its Influence on Poverty and Environment', *IUCN Policy Think Tank*, No. 17.
- Harries, P. 1987, 'A Forgotten Corner of the Transvaal: Reconstructing the History of a Re-located Community through Oral Testimony and Song', in: B. Bozzoli (ed.), *Class, Community and Conflict*, Johannesburg: Ravan Press, pp. 93-134.
- Hutton, J., W.M. Adams & J. Murombedzi 2005, 'Back to the Barriers? Changing Narratives in Biodiversity Conservation', *Forum for Development Studies* 2: 341-70.
- Impacto 2005, 'Possible Voluntary Resettlement of Communities Living along the Shingwedzi River. Preliminary Identification of Areas with Potential for Resettlement', Maputo: Impacto (Unpublished report).
- Jansen, D.J. 1989, 'Joint Venture Options for Wildlife Utilization in Zimbabwe', WWF Project No. 3749, Project Paper No. 3.
- Jansen, D.J. (n.d.) 'What is a Joint Venture? Guidelines for District Councils with Appropriate Authority', WWF Project No. 3749, Project Paper No. 16.
- Jones, K.R. & J. Wills 2005, *The Invention of the Park. From the Garden of Eden to Disney's Magic Kingdom*, Cambridge: Polity Press.
- Koro, E. 2005, 'New Development Model Spurs Growth in South African Rural Community', *WRI Features* 3 (2).  
[http://Newsroom.Wri.Org/Wrifeatures\\_Text.Cfm?Contentid=3323&Newsletterid=83](http://Newsroom.Wri.Org/Wrifeatures_Text.Cfm?Contentid=3323&Newsletterid=83)
- Krug, W. 2002, 'Private Supply of Protected Land in Southern Africa: A Review of Markets, Approaches, Barriers and Issues', OECD Report  
Env/Epoc/Gsp/Bio(2001)9/Final

- Levine, A. 2002, 'Convergence or Convenience? International Conservation, NGOs and Development Assistance in Tanzania', *World Development* 30 (6): 1043-55.
- Mavhunga, C. & M. Spierenburg 2004, 'The Great Limpopo TFCA: The Forgotten History of an Idea', Paper presented at the Annual Conference of the American Society of Environmental History, 1-4 April, Victoria, British Columbia.
- McDermott Hughes, D. 2001, 'Rezoned for Business: How Eco-Tourism Unlocked Black Farmland in Eastern Zimbabwe', *Journal of Agrarian Change* 1 (4): 575-99.
- McIntosh Xaba & Associates 2003, 'The Investigation of the Effects of Conservation and Tourism on Land Tenure and Ownership Patterns in Kwazulu-Natal', 15 September. Report submitted to the Association for Rural Advancement (AFRA).
- Mudenda, G. 2000, 'Cross-Border White Farmer Migrations in Southern Africa: The Zambian Experience', in: D. Tevera & S. Moyo (eds), *Environmental Security in Southern Africa*, Harare: SAPES Books, pp. 89-100.
- Norfolk, S. 2004, 'Examining Access to Natural Resources and Linkages to Sustainable Development: A Case Study of Mozambique', Rome: FAO, Livelihood Support Programme Working Paper Series No. 17.
- Ramutsindela, M. 2004a, *Parks and People in Postcolonial Societies: Experiences in Southern Africa*, Dordrecht/London: Kluwer Academic Publishers.
- Ramutsindela, M. 2004b, 'Glocalisation and Nature Conservation Strategies in Twenty-First Century Southern Africa', *Tijdschrift voor Economische en Sociale Geografie* 95 (1): 61-72.
- Reid, H. 2001, 'Contractual National Parks and the Makuleke Community', *Human Ecology* 29 (2): 135-55.
- Ribot, J.C. 2004, *Waiting for Democracy: The Politics of Choice in Natural Resource Decentralization*, Washington, DC: World Resource Institute.
- Roth, H.H. & G. Merz, (eds) 1997, *Wildlife Resources: A Global Account of Economic Use*, Berlin: Springer Verlag.
- Roué, M. 2003, 'US Environmental NGOs and the Cree. An Unnatural Alliance for The Preservation of Nature?', *International Social Science Journal* 178: 619-28 (Special Issue 'NGOs in the Governance of Biodiversity').
- Speets, S. 2001, 'The Muddy Road to Transfrontier Conservation: A Study on Community Development within the Largest Transfrontier Conservation Area in Southern Africa', Amsterdam: Vrije Universiteit, MA Thesis.
- Steenkamp, C. 2000, *The Makuleke Land Claim: Power Relations and CBNRM*, London: IIED (Evaluating Eden Series).
- Steenkamp, C. 2001, *The Makuleke Land Claim: An Environmental Conflict*, Johannesburg: University of the Witwatersrand, PhD Thesis.
- Tevera, D. & A. Chimhowu 2003, 'Situating the Maputo Corridor: A Regional Perspective', in: F. Söderbaum & I. Taylor (eds), *Regionalism and Uneven Development in Southern Africa: The Case of the Maputo Development Corridor*, Aldershot/Burlington: Ashgate, pp. 32-40.
- Thornton, M. 2006, 'Taking Charge', *Africa Geographic* February: 61-69.
- Wels, H. 2003, *Private Wildlife Conservation in Zimbabwe. Joint Ventures and Reciprocity*, Leiden: Brill Academic Publishers.
- Wolmer, W. 2003, 'Transboundary Conservation: The Politics of Ecological Integrity in the Great Limpopo Transfrontier Park', *Journal of Southern African Studies* 29 (1): 261-78.

**Internet sites:**

[www.africanparks-conservation.com/index.html](http://www.africanparks-conservation.com/index.html), visited 10 December 2006

[www.busrep.co.za/index.php?fArticleId=260221](http://www.busrep.co.za/index.php?fArticleId=260221), visited 10 December 2006

[www.greatlimpopopark.com/main.php](http://www.greatlimpopopark.com/main.php), visited 13 August 2006

[www.peaceparks.org](http://www.peaceparks.org), visited 10 December 2006

[www.richtersveld.net/BROADER.htm](http://www.richtersveld.net/BROADER.htm), visited 10 December 2006

[www.unep-wcmc.org/protected\\_areas/categories/index.html](http://www.unep-wcmc.org/protected_areas/categories/index.html), visited 10 December 2006

## The social-security function of land in Mbarara District, Uganda

André Leliveld<sup>1</sup>

*By means of a case study in Mbarara District in southwest Uganda, this chapter analyzes the social-security functions of land for poor rural households. The results show that under the combined influence of population growth, market integration, national land-reform policies and land degradation, the social-security functions of land in Mbarara District are eroding. This process is disadvantageous for poorer households and those totally dependent on agriculture for survival. Households headed by widows, divorced or single women are more likely to suffer as a result of the eroding social-security function of land than male-headed households. This has implications for the land-reform policies in Uganda that insufficiently reflect the realities found at grassroots level.*

### Introduction

The significance attached to land in agrarian economies in Sub-Saharan Africa generally goes far beyond the simple notion of a factor of production and its

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associated scarcity and price. Land takes on important functions of identity, security and prestige related to kinship, culture and religion (Sjaastad 2003). This chapter concentrates on the (social) security function of land in African agrarian economies, which used to be vested in customary land-tenure arrangements whereby membership of a rural community ensured access to land, be it in the form of rights of use over privately apportioned land plots or the village commons (Platteau 2002). The cultivation of land can form a base for survival and a major safeguard in case of adverse events such as (temporary) unemployment or falling prices on output markets. In addition, poorer members of rural communities could derive a substantial part of their income from the village commons, which then also have a clear social-security function by providing protection against the risk of chronic poverty (Agarwal 1991, Dasgupta 1987, Platteau 2002).<sup>2</sup>

There are, however, several developments in African societies, some dating back to colonial times, that have influenced the social-security function of land. Firstly, under the combined influence of population growth and market integration, land pressure has increased causing a shift from extensive to intensive resource-use patterns (Baland *et al.* 1999, Platteau 2002). This development has accelerated, particularly in areas with access to strong and expanding (typically urban) food markets where competition for land, fuelled by immigration and investment in technology, is driving the market for land (Benjaminsen & Sjaastad 2002, Chimhowu & Woodhouse 2006). Secondly, many national land policies and legislation are promoting individual tenure through the creation and registration of individual property rights. The rationale behind this is to allow land to be sold through land markets, which is supposed to promote investment and productivity growth. This is in contrast to property rights under customary or communal forms of tenure that are typically associated with low rates of productivity-enhancing investments (Chimhowu & Woodhouse 2006). And thirdly, land degradation as a result of soil erosion, nutrient loss and changes in crops causes declining land fertility of individual and communal plots, thus reducing the role of land in meeting social-security needs.

These developments have raised questions about the social-security function of land in contemporary rural Africa. One position suggests that the transformation of Sub-Saharan African societies towards land markets and more individualized forms of land tenure leads to property rights in land that are increasingly defined with no regard for social-security concerns (see André & Platteau 1998, Fafchamps 1992, de Janvry *et al.* 2001, Platteau 2002, Sjaastad 2003).

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<sup>2</sup> For the analytical use of the concept of social security in non-industrialized societies, see Ahmad *et al.* (1991), F. & K. von Benda-Beckmann (1994), Dekker (2004), de Bruijn & van Dijk (1995), de Jong *et al.* (2005), Jütting (1999), Leliveld (1994), Nooteboom (2003) and Platteau (1997).

Those persons with indirect and secondary rights to land (such as women, ethnic minorities, nomadic pastoralists) may lose them if land is formally privatized under titling and registration programmes. Land titling generally involves the registration of only primary (i.e. cultivation) rights and excludes secondary or seasonal rights (e.g. grazing, firewood and wild food gathering) that are likely to be important 'safety-net' rights for the poor under customary tenure (Toulmin & Quan 2000). Land title registration is also thought to favour the wealthy, who are best placed to deal with the bureaucratic procedures involved. And the development of a land market would open up the possibility of distress sales by the poor in times of hardship, thus accelerating social differentiation and landlessness among the poor. In summary, for the advocates of this position, the flexibility (or 'negotiability') of access to land through kinship under customary law offers the possibility of re-allocating land to poorer community members on the basis of need, and the subsequent ambiguity or non-final character of customary rights is a positive factor that ensures continuing access for the poor (Chimhowu & Woodhouse 2006: 348).

A different position is taken by Baland *et al.* (1999), who found that the land market in Uganda permitted those households that had inherited little or no land to acquire land, often from those who had inherited sizeable tracts of land. Although these landless and land-poor households continued to have less land, the opportunity to buy (and rent) land did increase their landholdings, and also improved their equity with regard to land access. Troutt (1994) had a similar argument based on her findings that land markets increase access to land for women and commercial producers, persons who generally have difficulty acquiring land through customary mechanisms. Several authors have pointed out that for poor women, customary land-tenure systems may well be a source of social *insecurity* (see van den Berg 1997, Daley 2005a, 2005b, de Jong *et al.* 2005, Whitehead & Tsikata 2003).

Both positions can be related to two interpretations of the effects of agrarian change in African rural societies (Chimhowu & Woodhouse 2006). Sender & Johnston (2004), for example, argue that processes of agrarian change increase farm scale and labour demand, thus providing employment for rural people who would prefer to earn wages rather than eke out an uncertain living on less-productive farms. This view assumes that the eroding social-security function of land is compensated for by increased output and employment to the benefit of the rural poor. Others, however, argue that agrarian change leads to an increase of average farm size but without absorbing labour displaced from small-scale farms, hence the importance of maintaining access to land for the poor to provide a safety net for a subsistence livelihood (Chimhowu & Woodhouse 2006: 362). This view seems to dominate the discussion on poverty reduction in

Africa, and creates tensions between pro-poor and productivity-enhancing goals within national agricultural modernization strategies and land policies.

By presenting an empirical study undertaken in Mbarara District in south-west Uganda, this chapter aims to contribute to further insight into how developments regarding land affect the social-security function of land for poor and vulnerable households. After an explanation of the data set and a brief description of the context of the study, the first part presents and analyzes data on (changes in patterns in) access to land and land quality, and how this affects the social-security functions of land for poor and vulnerable households. The second section discusses the extent to which land policies in Uganda reflect the situation on the ground as far as the position of poor and vulnerable households is concerned.

### Data set

Fieldwork was conducted in a cluster of seven rural villages in the southern part of Mbarara District, 2 to 10 km south of Mbarara, the district capital (see Map 7.1). The fieldwork consisted of two parts: a study with semi-structured and open interviews, and a random sample survey with a closed questionnaire. The former was done in two villages, Kyera and Rwariire 1 in 1999. By means of observation, semi-structured interviews, open interviews and discussions with village members, community leaders and NGO workers, qualitative information was collected on the operation and changes in social-security arrangements, including the role of land in these arrangements. On the basis of a socio-economic survey involving all the households in both villages, households and respondents were selected on the criteria of gender, age and wealth, thus representing the socio-economic differentiation found in both villages (see Leliveld 1999). A total of 109 interviews were conducted.

In 2000, a household survey was conducted in five other villages: Rwariire 2, Katojoo, Ngaara, Nykakoni and Karugyembe. This sample survey with a closed questionnaire was done to check whether the observations and insights derived from the qualitative study were representative of a wider area. In each village, 40 to 50 households were interviewed (almost 50% of all the village households). The selection was semi-random, interviewing every second household. In total 260 interviews were held, with men and women present at most of the interviews. The household survey had a number of sections: household type and composition, livelihood activities and wealth indicators, land ownership and land use, land degradation, labour availability and use, risks and contingencies facing the household, exchange and support relations between generations and within social networks, and membership of and participation in community-



*Photo 7.1* Kyera village  
[Photo: André Leliveld]

based organizations and NGO programmes. Observations from both the qualitative study and the household survey are used here.

### Context of the study

Mbarara District is in southwest Uganda in an area that used to be part of the Ankole Kingdom, also referred to as Nkore. Its people were and still are called the Banyankore, and are divided between Bairu and Bahima. The latter, a numerical minority, were pastoralists, while the Bairu majority were primarily engaged in agriculture. The kingdom was incorporated into the British Protectorate of Uganda in 1901 with the signing of the Ankole Agreement and it was later formally abolished in 1967 by the government of President Milton Obote and has not been restored. During President Idi Amin's time, Ankole also ceased to exist as an administrative unit and was divided in three districts: Mbarara, Bushenyi and Ntungamo.

The population of Mbarara District is about 1.1 million according to the 2002 census, with a population density of 107 per sq km and an annual growth





Map 7.1 Uganda and research area

rate of 2.9%. The average household size is 4.9 persons and 8% of the population lives in urban areas. The district has a tropical climate with a bi-modal rainfall pattern averaging 1200mm per annum. The rainy seasons are between mid-August and December, and mid-February and May. The district has a total surface area of 7,606 sq km of which approximately 42%, predominantly in the

southern part, is given over to agriculture. This southern area has abundant vegetation and is hillier than the northern part, making it more suitable for the cultivation of food crops (see Photo 7.2). It is the leading producer of green bananas or *matooke* in Uganda and its main cash crops include maize, beans, vegetables and Irish potatoes. Coffee was introduced in colonial times as an export commodity but, due to the civil war and a sustained decline in world market prices, coffee production fell dramatically in the late 1990s. Mbarara Town is the district's administrative centre and is enjoying economic growth as a service centre along the Kampala-Kigali road that forms part of East Africa's Mombasa-Kigali transport corridor. Its success has tripled the town's population from around 23,000 in 1981 to approximately 70,000 in 2002. This urbanization has created multiple links with nearby villages in terms of employment, trade, supplies, infrastructure (notably roads) and settlements.



*Photo 7.2* Land degradation in Mbarara District  
[Photo: André Leliveld]

#### *Poverty and wealth distribution*

The civil war in Uganda ended in 1985, leaving the new government with a battered and traumatized society and social, economic and political disorder. Although there have been major improvements in the country since then, living conditions, especially among the rural poor, remain critical. In 1999/2000 about 27% of the rural population in the western districts, to which Mbarara District belongs, were estimated to be living in households that spent less than what was

necessary to provide for their calorie requirements and a mark-up for non-food needs (UBOS 2003: 48, Table 6.3.2.b). In 1992 this figure was about 54%, which means a decrease of 50% in nearly ten years in the number people living below the poverty line in Uganda's rural western districts (UBOS 2003: 49, Table 6.3.2.d). In Mbarara District, 39.5% of the rural population has access to safe drinking water, and 78.1% of the population live within 5 km of a health clinic (UBOS 2006: 83, Table A1.1). People in the villages surveyed depend on Mbarara for healthcare services, where a wide range of facilities are provided by NGOs, private clinics and government organizations, including a hospital. The villages do not have access to electricity, and safe drinking water is accessed through bore holes, by harvesting rain water and a dam.

For more than a century, Mbarara District has had a history of commoditization and market integration that has led to changes in relations of production and social and economic differentiation among households (Doornbos 1976, 1978, Good 1970, Kafureeka 1992, Kasfir 1988, Mamdani 1987). This is reflected in the villages under study. Table 7.1 shows the main sources of household income (see also Table 7.7). A third of the households do not depend on agriculture for their daily income but this is not representative of Uganda and is related to land shortages near Mbarara Town which has forced households out of agricultural production and into casual wage labour and other non-agricultural income-generating activities.

*Table 7.1* Sources of income in sample households ( $n=260$ )

Source of income	Percentage
Agriculture only	14.7
Agriculture and/or self-employment and/or wage labour	51.8
Self-employment only	11.5
Self-employment and wage labour	8.5
Wage labour only	9.3
Fully dependent on transfers from others	4.2
Total	100.0

Note: Wage labour includes both salaried employment and casual wage labour  
Source: Survey data 2000

The diverse pattern of income generation is also reflected in differences in wealth among households in the villages, as can be seen in Table 7.2. Wealth differences were measured by using information based on visible wealth, and then calculating a possessions score (P-score) for each household, drawing on

Sender & Smith's (1990) methodology.<sup>3</sup> The higher the P-score, the wealthier a household is. The mean P-score is 3.2 for all households. At first sight, the wealth differences in Table 7.2 do not seem very pronounced: the distribution is normal with the majority of households falling in the middle ranges (2-5), while fewer households are found at the lower and upper ends of the scale. However, wealth differences by gender were more marked. The mean P-score among female-headed households was 2.3 and among male-headed households it was 3.6. In female-headed households, 38.5% had P-scores of 0 and 1, compared with 9.7% for male-headed households.<sup>4</sup> These patterns were also found by Sender & Smith (1990) and more recently by Daley (2005b) in studies in rural villages in Tanzania. Marked differences were also found between households that hired labour – a feature of 'capitalist' farmers – and those who did not (mean scores of 4.3 and 2.7 respectively), households having members involved

Table 7.2 Possessions score of households (n=253)

P-score	Number of households	Percentage	Female-headed* households (%)	Male-headed households (%)
0	3	1.2	2.6	0.6
1	44	17.4	35.9	9.1
2	56	22.1	23.1	21.7
3	46	18.2	20.5	17.1
4	42	16.6	9.0	20.0
5	32	12.6	3.8	16.6
6	24	9.5	5.1	11.4
7	6	2.4	0.0	3.4
Total	253	100.0	100.0	100.0

\* These are *de jure* female-headed households.  
Source: Survey data 2000

<sup>3</sup> The P-score is a simple index of the level of material well-being of households, providing a rapid indicator of the overall economic status of respondents and households. Households or persons score 0 for the absence or 1 for the presence of several pre-selected visible wealth items. The P-score for each household is calculated by adding up the scores for the selected items. Sender & Smith used 14 items to calculate the score, including the personal belongings of household members (for instance, a watch, coat, sweater, two or more pairs of shoes). During the Mbarara survey, sufficient questions were asked on wealth items at household level to calculate a P-score, although it was not possible to explore intra-household wealth distribution. Households could score on seven visible wealth items: their roof (metal), floor (cement), walls (bricks), furniture (sofa, chairs), bicycle, cattle and goats.

<sup>4</sup> Variance analysis (one-way ANOVA) gives an F-score of 35.70, which is significant at the 0.05 level.

in casual wage labour – usually done by poorer households – or not (mean scores of 2.3 and 3.6 respectively), and households with or without permanent salaried members (mean scores of 4.5 and 3.0 respectively).<sup>5</sup> In summary, wealth differences among households are substantial, an issue that is addressed in further detail later.

*Developments in land availability and land reform*

For a full understanding of the current social-security functions of land for households and groups of people in Mbarara District, some insight in developments in land availability, land-tenure systems and land policies in the district is needed. Kasfir (1988) used the notion of the land frontier<sup>6</sup> in a historical account of these processes in Mbarara District. In the pre-colonial Nkore Kingdom there was no land frontier and land was relatively abundant but this began to change when the Nkore Kingdom became part of the British Protectorate of Uganda in 1901. The British did not establish a plantation and settler economy in Uganda and smallholder agriculture – with cattle and crops – continued to be the basis of production in Ankole, although it became increasingly integrated in a capitalist economy (Kasfir 1988: 160). The main factors behind this market integration in the colonial period included population growth and migration, the emergence of a wage labour force, government and individual initiatives towards an expanded trade in livestock, tax collection and the gradual extension of coffee and tea production (Good 1970, Kasfir 1988). These factors started the commercialization of land as a factor of production that became manifest through an increasing frequency of sales and rents, either for cultivation or for purposes of investment, speculation and prestige (Doornbos 1978: 133). The colonial authorities also introduced three new tenure systems in Ankole: *mailo*<sup>7</sup>, leasehold and individual freehold, which soon became an alternative route to land acquisition, thus adding to the trend towards commercialization (Doornbos 1978: 134). However, the main means of land acquisition was still inheritance or the opening up of vacant land because public land in colonial times – or what

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<sup>5</sup> Variance analysis (one-way ANOVA) gives F-scores of 50.60, 37.72, and 25.98 respectively, which are significant at the 0.05 level.

<sup>6</sup> The notion of the land frontier ‘refers to the situation where there is availability of underdeveloped land so extensive that it has little or no market value. This frontier disappears when land becomes a valued commodity, whether or not it is actually being developed’ (Kasfir 1988: 160).

<sup>7</sup> *Mailo* land was a term adopted from Buganda where it had become the local expression for the square miles of land allocated by the British to royalty and the chiefs of Buganda. A similar policy was introduced in Ankole – though in smaller numbers – as part of the colonial benefits provided to the Bahima, who occupied most of the senior chieftainships in the colonial administrative system.

used to be called Crown Land or *Karandaranda* – was still widely available for cultivators and herders in Ankole.

After independence in 1962, the commoditization of land and the steady growth in converting land from customary ownership to private freehold and leasehold continued, and the land frontier gradually disappeared. An important reason for the disappearance of the land frontier was population growth. Between the 1959 and 2002 censuses, the population of Mbarara District almost quintupled from 236,000 to 1.1 million people. Mbarara District has seen large inflows of migrants from other areas since the 1950s, including people from the densely populated neighbouring district of Bushenyi and pastoral migrants from Rwanda fleeing the civil war there. And since the early 1970s, Mbarara has experienced continuing in-migration of cultivators from the districts of Rukungiri and Kabale near the Rwandan border as a consequence of the earlier closure of the land frontier in those areas (Kasfir 1988: 162).

A second important contribution to the demise of the land frontier has been subsequent national land policies which brought changes to the system of land tenure in the district. At independence, the majority of public land was still available for customary tenants and, without title, they could not legally buy or sell their land or use it as collateral for bank loans. To promote economic development, the 1969 Lands Act permitted these customary tenants to apply for leaseholds. The vast majority, however, could not afford the survey fees or just did not bother to do so and, therefore, could not sell their land. Instead, they started selling their coffee trees and banana plants. For most purposes they could be considered freehold owners but with no title to their land.

The 1969 Lands Act was followed by the Land Reform Decree of 1975, which did away with all forms of freehold by declaring all land in Uganda to be public and to be administered by the Uganda Land Commission. The 1975 Decree gave the state title to all land, and individuals could only acquire land through long-term leases (99 years). For those who had the capital to apply for leases, the Decree provided regulations by which customary tenants on either public or *mailo* land could be forced off the land at short notice at the discretion of the leaseholder. Insecurity over land led to a sharp rise in leases: the more leases there were, the more land rose in value in Mbarara and the more people wanted to acquire them.<sup>8</sup> However, for all poor and most middle-class farmers, the fees made it impossible to think of applying for leases, even though many of them became aware of what a lease held by someone else meant for them.

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<sup>8</sup> In the 1970s about 16% of the total land area was covered by enclosed farms. This led to clashes between Bahima and Banyarwanda herders and Bairu cultivators who could not expand their holdings as their numbers increased, while in other places fencing by Bairu cultivators forced herders to move or give up their way of life (Kasfir 1988).

Actually, the status of most of the customary tenants on public land was reduced to that of tenant on sufferance (Kasfir 1988: 165, Rugadya 1999: 4). They were left with an uncertain claim to resettlement, and if they could be resettled it was unlikely to be on the most fertile and well-watered land in the area. And there was no guarantee that someone else would not lease *that* public land and evict them again (Kasfir 1988, Kafureeka 1992, Okuku 2006). Though suggestions were made to improve their situation, none were put into effect (Okuku 2006).

Under President Museveni's government, which came to power in 1986, a new land policy was gradually developed. This process was informed on the one hand by a modernization paradigm inspired by the IMF/World Bank whereby land had to be transformed into a tradable commodity to promote agricultural development and transformation, and, on the other hand, by the political power play of the Museveni government, in particular towards those groups seeking to restore injustices that had resulted from the implementation of the 1975 Decree (Bazaara 2002, Okuku 2006, Rugadya 1999). The result was the 1998 Land Act, whose central aim has been to reform land-tenure relations in Uganda and encourage and support investment in agriculture by making rural and urban land more readily available. The Land Act introduced two significant changes following the 1995 Constitution and the abolition of earlier legislation. First, whereas in the 1975 Land Reform Decree all land was declared public and vested in the Uganda Land Commission, the radical title to land was now vested in the citizens of Uganda. Second, the systems of land tenure that were in existence before independence were re-instated: customary tenure, *mailo* tenure, freehold tenure and leasehold tenure. The 1995 Constitution and the 1998 Land Act were the first to recognize customary tenure as a land-tenure system in Uganda, a remarkable fact given that following independence over 75% of land in Uganda was and still is held customarily (Busingye 2002). The 1998 Land Act has generated much discussion in Uganda. One of the major criticisms is that the Act is unclear and contradictory about how the poor and vulnerable are to be protected, while simultaneously encouraging a land market (Bazaara 2002, Okuku 2006, Rugadya 1999).

Besides population growth and national land policies, land degradation has also contributed to the demise of the land frontier by affecting the quality of arable land and rendering it unsuitable for agriculture. Pender *et al.* (2004: 768) noted that the rate of soil nutrition depletion in Uganda is amongst the highest in Sub-Saharan Africa, and that soil erosion is a serious problem in highland areas. Several indicators of food security, farmland availability and access to energy sources have also deteriorated (see Pender *et al.* 2004: 773-775, Table 1). Olson & Berry (2003: 10, Table 1) estimate that 50% of the total land area in Mbarara District is currently affected by soil erosion (see Photo 7.2). Akello

(2002), who links Ugandan farming systems with land degradation challenges, sees the erosion problems in Mbarara District resulting from the highly fragmented land holdings due to population pressure, alarming deforestation, poor farming practices, steep slopes and the customary land-tenure system.

### Land and social security: Findings from the case study

The social-security functions of any arrangement or institution can generally be defined in terms of insurance and assistance. The insurance function refers to the support that is given to (vulnerable or poor) members of a community to tide them over periods of unusual economic stress caused by a wide spectrum of risks and uncertainties. The assistance function refers to the help provided to poor members of a community to escape chronic poverty. In many rural African societies, these social-security functions are embedded in state-contingent reciprocal transfers and access rules for vital resources including land (see Platteau 1991, 2002). Historically, the main social-security function of land has been assistance – helping (vulnerable) members of the community to escape chronic poverty. This function was mostly vested in the rules governing access to land (and other natural resources) insofar as these rules could ensure families or persons access to land that would enable them to earn a decent livelihood in different phases of their lifecycle, be it in the form of use rights over privately apportioned land plots or village commons (Platteau 2002: 6-7). If the risk lies in a short-term shortage of land, the customary land-tenure system could also have an insurance function provided that it allows for a flexible system of land loans or pledges to provide the necessary safeguard against short-term imbalances in land distribution (Platteau 2002: 6).

Among the Banyankole, both functions were historically vested in their customary land-tenure arrangements<sup>9</sup> under which the *Omugabe* (the King) was theoretically the owner of all land although this title had little or no bearing on the way land was allocated (Doornbos 1978: 56). There were mainly two ways in which a man<sup>10</sup> could gain access to a piece of land, namely through inheritance or by opening up a new plot. The latter required the consent of the local

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<sup>9</sup> The term ‘customary tenure’ is used in this chapter to refer to the form of land tenure that recognizes land ownership not because the owner has any documents or papers to prove it but because the community accepts that the person owns it, either because it belonged to his father and grandfather or because he bought it or because he was the first to settle an unoccupied place (Adoko & Levine 2005). As long as everyone accepted the claim, it was fact.

<sup>10</sup> The use of the term ‘man’ should be taken very literally here because among the Banyankole, as elsewhere in Uganda and the developing world, only men used to have access to land.



people and the chief, something that does not seem to have been particularly difficult to obtain (Doornbos 1978: 132). This customary tenure arrangement was of particular importance to Bairu cultivators. A man who cultivated a piece of land had certain rights to it: to utilize his land as he thought best, lend his land, pledge crops but not the land itself, dispose of the land according to the laws of inheritance, dispose of trees growing on his land, prohibit grazing near his homestead, and fence his homestead. The general community had the right to graze communally and had access to water and other common resources (Rugadya 1999).

Land ownership as a concept therefore does not have the same meaning for the Banyankole as might be expected regarding individual property. For the Banyankole, as for many other Africans, land rights are embedded in concrete local practices, social relations, obligations and responsibilities and do not have much meaning in the abstract. Rights to land were established in the past by cultivating the land, and as long as land was being cultivated it was said that a man 'owned' the land as if it were his individual property. A woman could only have access to land through her husband or a male relative, and her rights were restricted to usufruct rights. So women who were childless, single, widowed, disabled, separated or divorced, or had only female children often had little or no access to land and did not have access to land through a male relative either.

#### *Access to 'permanent' land*

Survey respondents were first asked whether their households had access to cultivated land that in their view could be considered as their own. They were also asked by which transfer arrangement their households had acquired the land and which land-tenure arrangement the plantations and gardens operated under.<sup>11</sup> Several observations are shown in Table 7.3. Firstly, 70% of the poorest households (those with P-scores of 0 and 1) owned land in the form of banana plantations, and 21% owned gardens where vegetables, potatoes and other seasonal crops were grown. These figures contrast with the other wealth categories where at least 90% of households owned plantations and on average 43% of households owned gardens.<sup>12</sup> In the lower wealth strata, a relatively high number of (*de jure*) female-headed households can be found, and cross-tabulation shows that there is a significant negative relationship between house-

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<sup>11</sup> The term 'plantation' refers to the plots that are used for planting banana trees and/or coffee trees, usually surrounding the house (Photos 7.1 and 7.2). The term 'gardens' refers to the plots that are used for planting seasonal crops such as Irish potatoes, green beans, tomatoes, green peppers and so on.

<sup>12</sup> Cross-tabulation shows a significant relationship between access to land and wealth categories. Kendall's tau-c score is 0.190, with a T-value of 4.15, which is significant at 0.05.

holds that are female-headed and have access to permanent land holdings.<sup>13</sup> Half of the households with no access to permanent land were female-headed households (in contrast to 28% of land-owning households), of which 76% had a P-score of 0 or 1, and their heads were single (6.3%), widowed (21.9%) or divorced (21.9%). Similar data was found by Appleton (1996: 1816), who reported that female-headed households were significantly less likely to report cultivable land among their assets.

Table 7.3 Land ownership of households ranked by P-score (n=253)

P-score	Number of households	Plantation ownership (%)	Acquired through		Tenure arrangement	
			Inheritance	Purchase	Customary	Freehold
0-1	47	70.2	66.7	24.2	97.0	3.0
2-3	102	89.2	68.1	30.8	97.8	2.2
4-5	74	93.2	53.6	46.4	94.2	5.8
6-7	30	100.0	56.6	53.3	80.0	20.0

P-score	Number of households	Garden ownership (%)	Acquired through		Tenure arrangement	
			Inheritance	Purchase	Customary	Freehold
0-1	47	21.2	40.0	50.0	100.0	0.0
2-3	102	28.7	63.3	33.3	100.0	0.0
4-5	74	45.9	50.0	41.1	97.1	2.9
6-7	30	53.3	62.5	43.8	93.7	6.3

Source: Survey 2000

Findings from the qualitative study show that many of the households headed by widows have a long history of disease (in particular HIV/AIDS) and this has depleted their household's assets, including land, or their land has been taken by their in-laws after their husbands died. 50% of the widows reported land grabbing by in-laws after their husband's death. Some of the divorced women suffered social problems while they were married such as alcoholism or physical abuse that made them decide to leave but they were not able to enforce any claim to (part of) their husband's land. Two-thirds of divorced women reported that they could not stay on their land after their divorce. Some of the male-headed households without land have faced similar problems in the past, in particular disease and alcoholism, which have depleted their land possessions. In other cases, a lack of land was not stated as a problem because the

<sup>13</sup> Kendall's tau-c value is -0,101 with a T-value of -2.39, which is significant at 0.05.

head of the household had bought a plot in the village for residence purposes only and had an income from a salaried job in Mbarara Town. This indicates that landlessness is not by definition associated with lower household consumption per adult because some households with remunerative non-agricultural activities may choose not to farm (Appleton 1996).

Table 7.3 also shows that most of the land owned by households is still under customary tenure, but on average 38% of the households purchased their plantations and 42% of the households acquired their gardens in the same way. This confirms the observations by Chimhowu & Woodhouse (2006: 356) on the existence of 'vernacular land markets' under customary tenure systems and indicates that most of the land traded or rented falls outside state-registered property, and, by implication, the 'legal' land market. In an earlier study on land ownership in the Mbarara region, Heck (1996: 7) observed that there was an apparent ease and frequency with which farmers and others buy and sell land in Ankole nowadays. A major reason is that lineages and lineage holdings have never had much time depth. Farmers used to change their residence quite frequently in their search for more or better land or in response to shifting political conditions. Another reason is that cash crop production (mainly coffee) started back in the early 1930s, providing many farmers with cash to expand their holdings and leading to an active land market. Similar processes have been observed in other parts of Uganda (see Baland *et al.* 1999, Deiniger & Mpuga 2003). The figures in Table 7.3 may even underestimate the existence of a vernacular land market because some of the respondents who said they had inherited their land, indicated that their (grand)fathers had bought it way back in the past.

Respondents were also asked whether their land produced enough to feed their households in normal years and whether they had experienced land shortages.<sup>14</sup> Table 7.4 shows that while the number of landless households is still relatively low (except in the lowest wealth stratum), even what many land-owning households produce from their land is not sufficient to feed their family throughout the year. As can be seen from Table 7.4, the answer to whether land possession allows for food sufficiency or not corresponds well with a control question about whether households with land experienced, in their perception, a land shortage in the last five years. At least 70% of the land-owning households in each wealth stratum felt they had not had enough land. And 95% of the respondents said that the shortage of land was a major problem in their villages. They were not only referring to land that could be claimed by individual house-

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<sup>14</sup> In 1999, a severe drought hit Mbarara District. The question about food sufficiency was asked in 2000, which was considered by respondents to be a normal year in terms of rainfall and harvests.

holds (*ekibanja*, lineage land) but also to open access areas of grazing land, swamps and forests (*karangaranga*, public land). Of the 253 respondents, 229 said there were no longer any commons in their villages that they could use for grazing or for collecting firewood. Drinking water could still be collected from pumps in the villages and wells in the valleys.

Table 7.4 Land shortage and food insufficiency among households with land possessions, ranked by P-score (n=252)

P-score	Number of households (n=252)	Landless households (%)	Land insufficient to feed the family (% of land-owning h'holds, n=215)	Land shortage in eyes of land-owning households (% , n=215)
0-1	47	29.8	81.8	84.8
2-3	101	10.9	74.4	82.0
4-5	74	5.4	71.4	70.6
6-7	30	0.0	60.0	72.4

Source: Survey 2000

When respondents were asked about the causes of land shortage in their village, four main answers emerged. Firstly, the population growth in the villages over the last few decades has increased the number of claims on unused land. Secondly, the inheritance system, whereby a man receives a part of his father's land when he gets married, has led to plot fragmentation and a decline in plot sizes. Thirdly, economic activity in Mbarara Town has grown in the last 20 years and this has resulted in pressure on land for residence plots and rising land prices in town. Increasingly, people from Mbarara Town have started to buy plots in surrounding villages, either for residence or speculative purposes, or both. And fourthly, there are the sales of land through necessity to cover healthcare and funeral expenses because of HIV/AIDS, and to pay school fees.

Survey respondents were also asked about the soil quality of their land holdings. Table 7.5 shows that the majority of respondents classified the quality of their plantations and gardens as either 'moderate' or 'poor'. In general, the soil quality in gardens was seen as being higher than that on the plantations, possibly because gardens are usually situated in the more fertile valleys and near water sources. The second column in Table 7.5 shows that households in the lower wealth strata generally occupy less fertile grounds, a situation widely seen in rural societies around the world.<sup>15</sup> Respondents' observations on the long-term quality of their soil are even more important. When asked about soil

<sup>15</sup> Cross-tabulation between P-scores and quality perception gives a significant relationship at 0.05 (Kendall's tau-b -0.183, t-value -2.881).

quality over the last five years, 47.3% of the respondents said that the soil quality of their plantations was decreasing, while the figure for gardens was on average 32.7%. Only 11% of respondents said the quality of the soil on their plantations was improving, and 8% felt this was true for their gardens. Most of these respondents had participated in an NGO programme on land improvement and organic farming.

*Table 7.5* Respondents' opinions about the soil quality of their plantations and gardens, ranked by household P-scores

P-score	Respondents' opinions of soil quality on plantations (n=222)				Respondents' opinions about soil quality in gardens (n=89)			
	Poor	Moderate	Good	Decr.*	Poor	Moderate	Good	Decr.*
0-1	54.5	39.4	6.1	60.6	10.0	70.0	20.0	20.0
2-3	32.2	44.4	23.4	42.2	33.3	44.8	21.9	41.4
4-5	23.2	49.3	27.5	33.3	17.6	55.9	26.5	38.2
6-7	20.0	50.0	30.0	53.3	12.5	77.7	9.8	31.2

\* Decr. = decreasing  
Source: Survey 2000

The land-shortage problem, in both quantitative and qualitative terms, creates vulnerability for another group of households in addition to the landless, namely those fully dependent on agriculture for survival and income generation (14.7% of the sample, see Table 7.1). Three-quarters of this group reported experiencing a shortage of land and 70.8% did not raise sufficient food to feed their family throughout the year. The majority of these households are in the middle-wealth strata: on average 17.7% of the households in the P-score range 2 to 5 were fully dependent on agriculture. This figure is 8.5% for the 0-1 range and 13.3% for the highest range. And in the agriculture-dependent group, a relatively high percentage of female-headed households can be found (56.7%) compared to the whole sample (30.4%). This is no surprise because many of the female heads are the only adult in the household, which – in the absence of (informal) childcare arrangements – confines them to income-generating activities that can be done at home, i.e. agriculture or rural industry.

#### *Extending access through land loans or pledges*

Land shortages at household level do not have to be a major problem as long as the risk lies in a short-term shortage of land, and provided the customary land-tenure system allows for a flexible system of land loans or pledges to provide the necessary safeguard against short-term imbalances in land distribution. This refers to the insurance part of the social-security function of land-tenure

arrangements. This flexible system of loans and pledges can be found in many customary tenure arrangements and the one in Ankole society is no exception. Respondents were first asked whether their households had acquired temporary use rights to land in the last five years and how these rights were obtained (see Table 7.6).

Table 7.6 Temporary land use, purchase and sales among surveyed households, by access to land and P-score

Access to land and P-scores	Temporary use rights		Compensation paid			Rented out land	Bought land (last 5 years)	Sold land (last 5 years)
	No	Yes	None	Harvest	Money			
Landless (n=29)								
0-1 (n=14)	4	10	4	3	3	0	0	1
2-3 (n=11)	1	10	1	9	0	0	0	1
4-5 (n=4)	2	2	1	1	0	0	0	0
Land-short (n=170)								
0-1 (n=28)	7	21	1	18	2	1	0	5
2-3 (n=73)	23	50	4	39	7	1	6	14
4-5 (n=48)	20	28	0	15	13	4	8	5
6-7 (n=21)	10	11	1	7	3	3	8	3
Land-sufficient (n=49)								
0-1 (n=5)	5	0	0	0	0	2	1	0
2-3 (n=16)	13	3	0	3	0	5	1	3
4-5 (n=20)	19	1	0	1	0	7	1	2
6-7 (n=8)	8	0	0	0	0	1	6	1

Source; Survey 2000

For many of the landless and land-short households, acquiring use rights to land on a lease basis was a way of expanding their land holdings. Compensation for the lease was usually paid either in the form of a part of the harvest (in 71% of the landless and land-short cases) or money (for 11% of those who leased land). There were only a few cases where no compensation was requested which would seem to suggest that the system of temporary leases has an insurance function against (temporary) land shortage for which a quasi-premium (any form of compensation) has to be paid. These figures more or less correspond with the answers of those who lease land out. 80% asked for part of the

harvest, 7% requested money and in the rest of the cases no compensation was asked at all or this was left up to the tenant. Tenants were asked how they were related socially to the landlord. 65% of respondents said that the people they leased from were 'just' neighbours or other villagers, with neither group being related through kinship. 11% said the landlord was a relative of the male head of the household, 10% mentioned friends and 8% said the Catholic Church.<sup>16</sup> These figures correspond with the answers of those who leased land out: 56% leased land to non-kin neighbours and 16% had leased it to relatives. Among those who borrowed land, there were also female-headed households, with 55.6% of the female-headed households (n=79) having access to land for temporary use. In 95% of the cases, the women involved borrowed from non-relatives, people who were mentioned as friends, neighbours or other community members. This seems to confirm the observation by Whitehead & Tsikata (2003: 78) that women – under customary tenure – do not only have access to land through marriage but also through other social relations.

Table 7.6 shows that relatively few households (9.7%) leased land out compared with the high percentage (38.7%) of households leasing land. The low figure for households that leased out land could be an indication that large land holdings are concentrated in only a few hands in the villages. Land sizes were not measured or asked for in the sample survey, but the number of days that it takes to complete the first digging of plantations and gardens was used as an indication. Means and variance analysis of the number of days needed for the first digging shows a significant difference between households that rented out land and those borrowing land. The mean for the group that leased land was 11.9 days, and for those who did not it was 22.4. The same analysis, but considering whether or not households rented out land as the independent variable, shows similar results: 25.4 for those who did, 15.7 for those who did not.<sup>17</sup> In addition, a significant relationship could be seen between the wealth status of households and the incidence of borrowing and leasing out land, though the relationship is less clear for the cross-tabulation between wealth and renting out land.<sup>18</sup>

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<sup>16</sup> The Catholic Church was only mentioned in one village where the Catholic diocese of Mbarara still owned land which had been allocated in the past by the colonial government to Catholic missionaries.

<sup>17</sup> The variance analysis (one-way ANOVA) with 'the number of days for first digging' as the dependent variable and 'whether or not households leased land' as the independent variable gives an F-score of 21.04, which is significant at the 0.05 level. For the variance analysis where 'whether or not households rent out land' is the independent variable, the F-score is 6.56, which is significant at the 0.05 level.

<sup>18</sup> Cross-tabulation between wealth categories (P-scores) and whether or not households leased land gives a Kendall's tau-c of -2.38 with a T-value of -3.57, which is significant at 0.01. Cross-tabulation between wealth categories and households leasing out

*Extending access through purchase*

Another option for households to expand land holdings is to buy land, which was not possible in the past but has become an interesting feature of customary tenure systems in the last few decades (Chimhowu & Woodhouse 2006, Benjaminsen & Sjaastad 2002). Table 7.6 shows that in most cases households in the higher wealth strata were able to do so.<sup>19</sup> In contrast to borrowing practices, no female-headed households had bought land in the last five years, though there are no legal constraints for women to buy land. Many of the people from households in the higher wealth rankings did not originate from the village but had come to live there in the last 20 years and had different reasons for acquiring land. Having salaried jobs in Mbarara Town or its surroundings, people have started to buy small residence plots in nearby villages because land is still cheaper there than in town. Others have bought bigger tracts of land to ensure they have access to land if they become unemployed, their business fails or some other adversity hits them. There is a strong social-security (insurance) element underlying these motives, which has been observed by other scholars too. Kasfir (1988: 173), for instance, observed that ‘to judge from Mbarara the acquisition of land presently seems more a way for entrepreneurs to protect assets from continuing political and economic uncertainties than to introduce large-scale commercial agriculture as the basis of production’. Bazaara (2000) noted that people buy land to ensure intergenerational security: ‘the bulk of the land that is passing through the market is geared towards intergenerational household security rather than production for economic purposes’. And Kafureka (1992: 38) found that poorer people in Mbarara used land for productive purposes but the rich just kept it as an asset.<sup>20</sup>

While wealthier households purchased land, others (generally poorer households) sold land (see Table 7.6) to raise cash to cover medical expenses, in particular the high costs that come with HIV/AIDS (36%), to pay school fees (16%), to buy groceries (15%), to cover building expenses (17%), or a combination of all these. Significant relations could be found between the incidence of land sales and vulnerable households, including female-headed households, single-parent households and those headed by one or two grandparents taking care of (orphaned) grandchildren.

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land gives a Kendall’s tau-c of 0.115 with a T-value of 1.94, which is significant at 0.05.

<sup>19</sup> Cross-tabulation between P-scores and the buying of land gives a Kendall’s tau-c of 2.63 with a T-value of 4.59, which is significant at 0.01.

<sup>20</sup> The observation that people invest in land more for social-security purposes than for productive purposes may also explain why no particular tenure system in Uganda is more popular than others in terms of land use efficiency (see Place & Otsuku (2002).



*Engagement in other income-generating activities*

Another way for households to avoid land shortage is by generating income that does not depend on access to land. Tables 7.7 and 7.8 present such data. Table 7.7 shows the percentage of households (in each row) that are involved in a particular income-generating activity.<sup>21</sup> It can be seen that poorer (and generally more vulnerable households) are less engaged in agriculture than wealthier ones. Many poorer households compensate for a lack of income from agriculture by engaging in on-farm non-agricultural activities or doing casual work for others. The former include activities such as beer brewing, making grass mats and baskets, rope making and producing products for which local inputs are available. Generally, these activities generate low incomes and are frequently found among poor female-headed households as the activities can easily be done at home and low-cost inputs are required.<sup>22</sup> This is in contrast to many forms of off-farm self-employment such as trading, shop keeping, building, painting, plumbing, taxi driving (scooters or cars) and practising healing. These forms of self-employment were found predominantly among the higher wealth strata (see Table 7.7) because they generally need *ex ante* investments in tools, machines or knowledge before any income can be realized.

A similar observation on low- and high-earning activities can be made for wage-labour activities. Table 7.7 shows that many poorer households were involved in casual wage labour, while wealthier households were engaged in salaried employment. Among the poorest landless and land-short households, 60% and 70% respectively were engaged in casual labour, mainly agricultural activities like ploughing (with the hoe), planting and weeding. Generally, the wealthier households in the villages employed casual labour (see Table 7.8).<sup>23</sup> Casual work is not very remunerative: the daily rate paid for casual work in 2002 varied between US\$ 500 and US\$ 1,000 (US\$ 0.41 to US\$0.83 at the time) and the number of working days ranged between 20 and 45 days a year, with a median of 35. However, for poorer households with a lack of opportuni-

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<sup>21</sup> No income or consumption data were collected in the survey so Table 7.7 only shows whether households engaged in a particular income-generating activity or not. The fact that many households have multiple income sources is shown in Table 7.1.

<sup>22</sup> Cross-tabulation shows a significant relationship between this cluster of activities and households that are female-headed or not (Kendall's tau-c 1.48, with a t-value of 1.92, which is significant at 0.05).

<sup>23</sup> A significant relationship can be found between wealth and whether or not households are involved in casual labour, either as labourers or as employers. Cross-tabulation between P-scores and doing casual work for others gives a Kendall's tau-c of -0.365, with a t-value of -6.14, which is significant at the 0.05 level. Cross-tabulation between P-scores and employing casual labour gives a Kendall's tau-c of 0.382, with a t-value of 6.50 which is significant at 0.05.

Table 7.7 Percentage of households involved in a particular income-generating activity, by land availability and P-score

Land availability and P-scores	Agriculture	Self-empl. on-farm	Self-empl. off-farm	Casual work	Salaried employed
All households (n=253)					
0-1 (n=47)	40.4	34.0	17.0	59.6	0.0
2-3 (n=102)	70.6	17.6	39.2	41.2	10.8
4-5 (n=74)	71.6	12.2	58.1	16.2	17.6
6-7 (n=30)	83.3	10.0	36.7	13.3	40.0
Landless (n=29)					
0-1 (n=14)	7.1	35.7	14.3	50.0	0.0
2-3 (n=11)	36.4	27.3	63.6	63.6	18.2
4-5 (n=4)	0.0	0.0	25.0	25.0	75.0
Land-short (n=170)					
0-1 (n=28)	57.1	39.3	14.3	67.9	0.0
2-3 (n=73)	72.6	19.2	39.7	41.1	8.2
4-5 (n=48)	66.7	10.4	64.6	14.6	16.7
6-7 (n=21)	81.0	4.8	38.1	14.3	38.1
Land-sufficient (n=51)					
0-1 (n=5)	40.0	0.0	40.0	40.0	0.0
2-3 (n=18)	77.8	5.6	27.8	22.2	16.7
4-5 (n=20)	95.0	15.0	50.0	20.0	10.0
6-7 (n=8)	87.5	12.5	37.5	12.5	50.0

Source: Survey 2000

Table 7.8 Percentage of households that employed casual labour (1999/2000), by land availability and P-score

P-score	All households (n=248)	Landless (n=28)	Land-short (n=170)	Land-sufficient (n=50)
0-1	8.5	7.7	12.0	0.0
2-3	20.6	22.2	17.7	70.0
4-5	39.2	33.3	65.5	53.8
6-7	70.0	--	66.6	87.5

Source: Survey 2000

ties to generate an income from agriculture because of little or no access to land, casual work is in many cases the only possible option apart from self-employment.

### The social-security functions of land revisited

This section assesses the social-security function of land and considers how it might develop in the near future. First of all, the case study reflects conditions in Mbarara District as a whole. The land frontier has disappeared in the survey villages and, as Kasfir (1988: 161) notes: ‘no longer can the sons of a farmer who want to cultivate more than the share they inherited from their father simply request a chief to allocate unused land’. The result has been pressure on the availability of arable land, the disappearance of commons and severe land degradation. With these developments, the assistance function of land – or to be more precise, of the customary land-tenure system – is eroding. This will probably continue as the population is growing by an alarming 2,9% annually in Mbarara District. Pressure is being placed on land for residence and agricultural purposes, not only in terms of land availability but also in terms of land quality. In fact, land shortage and degradation have become risks in themselves, and particularly female-headed households and households that depend solely on agriculture for survival and income generation are being confronted with this situation. Krishna *et al.* (2006) found that land-related factors like crop disease, land exhaustion and land division are all associated with a descent into poverty in western Uganda.<sup>24</sup>

When land shortage and degradation erode the assistance function of the customary land-tenure system and land shortage becomes a risk in itself, one could still argue that this is not a problem provided that the customary tenure arrangements allow a flexible system of land loans or pledges to provide the necessary safeguard against temporary imbalances in land distribution. This refers to the insurance function of land. The above data show that this flexible system is present and because of the commoditization of land increasingly takes the form of ‘vernacular land markets’, through which land under customary tenure is rented, bought or sold. The system offers many landless and land-short households the opportunity of gaining access to land through temporary use rights and the conditional payment of compensation, either in kind or money. It was also shown that the system of loans or pledges gives female-headed households access to land through social relations that go beyond marriage and kinship. At first sight, therefore, a relatively well-developed insurance function of the customary tenure system seems to compensate for the eroding assistance function because of the disappearance of commons and unused arable land.

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<sup>24</sup> Other factors that are associated with a descent into poverty are health (ill health, healthcare expenses, and the death of income earners) and social and behavioural characteristics (e.g. family size, the age of the household head, funeral and marriage expenses, alcoholism).

However there is more at stake. Given that landless and land-short farmers' access to land comes primarily through rental and sharecropping arrangements, there are indications from the case study that increased pressure on available land in combination with a continued commoditization of land and labour will work against those with lower purchasing power, thus threatening reduced access to land and potentially further impoverishment for poorer land users (see also Chimhowu & Woodhouse 2006). Firstly, when looking at the flexible system of land loans and pledges, it is tempting to describe the lease system as a form of sharecropping but a sharecropping arrangement usually implies a longer-term multi-stranded relationship between land owner and tenant, in which the tenant can also rely on other forms of support in times of need. But increasingly, as Whitehead & Tsikata (2002: 76) observed for Sub-Saharan Africa, land relations and transactions that were formerly embedded in social relations are changing into property relations. From this survey and the qualitative study, it becomes increasingly clear that the relationship between landowner and tenant is changing into a one-stranded relationship. In many cases a lease is only given for one or two years, and an extension has to be negotiated after each growing season, which forces tenants to use the land only for cultivating seasonal food crops and not for planting cash crops (banana or coffee trees). In the tenants' eyes, this is different from in the past when landowner-tenant relations were longstanding and often multi-stranded. Many landowners remarked that they wanted to have more freedom and flexibility in how they use their land as new opportunities for investment or sale are presenting themselves, and calamities may demand the short-term availability of their land.

Secondly, the possibility to buy and sell land in the end seems to work against the poorer people in villages. As discussed in the previous section, it is mostly the wealthier and younger households that buy land, while poorer, older households sell land, and often these are distress sales. Respondents from poorer households viewed these developments with concern because they felt this showed increased economic inequality in their village. Those who buy land are being accused of exploiting the poor by buying land cheaply instead of helping the poor with loans or by leasing them small areas of land. Baland *et al.* (1999), in a study in Central Uganda, found that a rise in land markets had led to a concentration of land assets in the hands of a minority but that land markets also correct initial inequalities through land sales and land rentals and the borrowing of land. But Baland *et al.* (1999) claimed that whether this correction takes place depends on whether there is still a land frontier, which was not the case in Mbarara District. The findings in the case study, therefore, are more similar to those found by André & Platteau (1998) in densely populated Rwanda where such correction for inequalities does not take place.

While the commoditization of land has opened up a one-time option to sell land in times of hardship or cash need as a form of self-insurance for poor households, the sale of land by poor households to cope with distress leads to a vicious downward cycle. Those who sell remain in agriculture but with less land than before. As Kasfir (1988) and Kafureeka (1992) observed for Mbarara District, the disappearance of open land began to force poor farmers off their customary holdings, while increasing the economic differentiation with those who have managed to hold onto their land (Kasfir 1988, Kafureeka 1992). The likelihood of future emergencies increases as farm incomes decline, making future land sales even more likely. Land sales would seem to be accelerating the process through which a large class of people will become rural landless agricultural labourers instead of farmers (Adoko & Levine 2005: 54), a process that can be observed in the villages surveyed (Tables 7.7 and 7.8). Sender & Johnston (2004) argue that this agrarian change increases farm scale and labour demand, thus providing employment for rural people who would prefer to earn wages rather than eke out an uncertain income on less productive farms. From a social-security perspective, this may be advantageous because access to casual wage labour might be an exit option in cases of landlessness or land shortage. But it is also generally known that casual wage labour is an option of last resort because of low payments, poor labour conditions and the irregularity of demands. And there are others who argue that agrarian change leads to an increase in average farm size but without absorbing the labour displaced from small-scale farms, hence the importance of maintaining access to land for the poor to provide a safety net of subsistence livelihood (Chimhowu & Woodhouse 2006: 362).

In summary, there are strong indications from the case study that the social-security function of land in Mbarara District is eroding. This is disadvantageous to poorer households and households fully dependent on agriculture for their survival. Households headed by widows, divorced or single women are more likely to suffer from the eroding social-security functions of land than male-headed households. The following section relates these conclusions to the current debate on land reform in Uganda.

### Land policy and social security

Since independence in Uganda, as elsewhere in Africa, land questions and how to solve them have been at the centre of the political debate and policy making. Subsequent governments have tried to settle the land question in Uganda once and for all. To what extent do current land policies in Uganda deal with the (eroding) social-security functions of land? And are these policies informed by the realities at grassroots level? With sections on land in the 1995 Constitution

and the 1998 Land Act, the Ugandan government has three objectives; (1) to promote agricultural development through the creation of a land market that permits those with rights to land to voluntarily sell their land and for progressive farmers to gain access to land; (2) to ensure that people are not forced off the land, particularly those who have no other way of earning a reasonable living or surviving; and (3) to create uniformity across the country. It is clear that the Land Act's second objective has a strong social-security undertone because it recognizes that access to land is still vital for the survival of many people.

A step forward in current land legislation is the recognition that people who live on customary land are landowners. Under the 1975 Decree, customary land holding was not recognized as a legal tenure, that is, customary tenants may have moved onto the land and occupied it lawfully according to customary rules but their continued stay there became illegal. Under the 1975 Decree, customarily tenants were regarded as tenants who could be evicted at any time at the whim of the state (Busingye 2002, Kafureka 1992, Okuku 2006). The 1998 Land Act grants tenure rights to customary holders of land who can now process certificates of customary ownership and thus gain immediate title to the land they occupy. The 1998 Land Act also permits holders of land by customary tenure to convert it to freehold tenure. This can be done with or without a certificate of customary tenure. And the Land Act provides for communal ownership of customary land, prescribing a communal Land Association, which can be formed by a group of persons with the aim of communal ownership and improved land management. This provision is intended to protect the rights of pastoralist communities that are still found in northeastern Uganda and in the cattle corridors in the western parts of the country.

Whether the 1998 Land Act is sufficient to protect the right to land of poor people is subject to much debate in Uganda. One issue of concern is that the Land Act is based on a perception of customary tenure systems as an unchanged tradition, not taking into account the changes that customary systems have undergone since colonialism (see Cutola 2007). These include developments like the rise of 'vernacular land markets', the threat of fragmentation under customary tenure, rising inequality and land concentration in some parts of the country, the influence of land degradation, the disappearance of the land frontier, and the social and economic differentiation that has come with these developments (see also Okuku 2006, Bahiigwa *et al.* 2005, Baland *et al.* 1999, Deiniger & Mpuga 2003, Bazaara 2002). Though these developments are acknowledged in the contemporary research literature, they are not reflected in Uganda's official land-tenure reform agenda. Okuku (2006) claims that this has much to do with the donor-driven conceptualization of land-tenure relations in Uganda (see also Tripp 2004) and the institutional and political context of the

Land Act debate in Uganda: 'the concerns for equity, justice and social change in land relations in Uganda were sacrificed at the altar of power politics and narrow class interests' (Okuku 2006: 22). To protect the rights of the poor, more radical land reform is required whereby farmers would be given title deeds and not certificates of occupancy (Okuku 2006: 23). Similar conclusions were found by Chimhowu & Woodhouse (2006: 18-22) who argue that

(...) in circumstances of competition for land and the incipient privatisation of land will tend to reduce access to land for the poor, any attempt at registration of customary rights will only secure access for the poor if this allows the registration of individuals' existing use of land and other resources. (...) And in a situation where [also shown in this chapter, AL] landless farmers' and land-short farmers' access to land will come primarily through rental and sharecropping arrangements, land policy may need to consider how to ensure marginalised groups can negotiate protection of secondary rights, how to monitor the benefits to the poor of rental and sharecropping arrangements, and to seek improved access for poorer groups to high-return non-farm (though possibly natural resources-based) employment opportunities.

A second point of concern is how the Land Act deals with men's and women's unequal access to land. During the drawing up of the Land Act, women's movements in Uganda made sure that key clauses were included to protect women (see Rugadya 1999 and Tripp 2004). For example, one provision in the Act requires the prior written consent of both spouses in transactions involving family holdings. The Act also prohibits decisions pertaining to customary land that deny women access to, ownership of or occupation of land. Of particular importance to women activists was the inclusion of a clause on the co-ownership of land between spouses and/or family members that stems from the fact that customary practices provide limited possibilities for women to own land. Though the co-ownership amendments were passed by Parliament, political manoeuvring on the grounds of technicalities left women without this clause (Tripp 2004: 7).<sup>25</sup> In the absence of co-ownership, women's rights to land remain inferior to men's, and given that customary practices are fluid because they are socially embedded and are based on evolving local social and political relations, they can still potentially help or hurt women. At a time when clan leaders feel under siege and land is scarce, women have no guarantee that their claims will be given full consideration, and practices like grabbing land from widows and divorced women are likely to continue. Also the exclusion of the

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<sup>25</sup> MP and Ethics Minister Miria Matembe was about to read the amendments into the microphone for Hansard (the legislative record) when she was interrupted in mid sentence by someone who said they were finished and that she did not need to read them. Later she was told that because she had not read the clauses into the microphone, they could not be included in Hansard and, therefore, in the amendments to the Land Act (Tripp 2004: 7).

co-ownership clause prevents women from having access to credit as they cannot use land as collateral. This results in them being less willing to make investments that enhance agricultural productivity, one of other main objectives of the Land Act.

And thirdly, other policies, not related to land reform *per se*, may contribute to dealing effectively with the eroding social-security functions of land. Several researchers have emphasized the importance of the promotion of land management practices that prevent or reduce land degradation (Krishna *et al.* 2006, Pender *et al.* 2004). In the southwest region of Uganda, Pender *et al.* (2004: 780) observed that land management measures such as soil and water conservation practices including mulching, composting, manuring and incorporating crop residues are increasing because these measures are apparently well suited to the coffee-banana system found in the country's central and southwestern regions. In two of the surveyed villages, a local NGO, Kyera Farm, had been active in successfully promoting these measures; and farmers who had applied them said that the quality of their land had improved, or at least further degradation had stopped.

Landlessness is likely to become the future face of poverty in Uganda (Adoko & Levine 2005) and more attention needs to be paid to people who have no connection with land, namely the landless. The case study described in this chapter has shown that casual wage work is one of the exit options for landless or land-short households. Given Uganda's poor working conditions, policies that regulate the labour conditions of rural casual wage workers could contribute to improving the living conditions of those who are engaged in casual wage labour. The existence of land markets may lead to distress sales, which points to the need for a gradual and balanced growth in credit and insurance markets that could replace more traditional pooling mechanisms (Sjaastad 2003: 23). In the end, the development of social-security schemes that could protect informal-sector workers would be very effective at preventing them from falling into poverty but for this to be achieved major administrative, technical, economic and political constraints need to be overcome in Uganda.

## References

- Adoko, J. & S. Levine 2005, *A Land Market for Poverty Eradication? A Case Study of the Impact of Uganda's Land Acts on Policy Hopes for Development and Poverty Eradication*, Land and Equity Movement in Uganda (LEMU), Kampala.
- Agarwal, B. 1991, 'Social Security and the Family: Coping with Seasonality and Calamity in Rural India', in: E. Ahmad, J. Drèze, J. Hills & A. Sen (eds.) 1991, *Social security in Developing Countries*, Oxford: Clarendon Press, pp. 171-244.
- Ahmad, E., J. Drèze, J. Hills & A. Sen (eds.) 1991, *Social security in Developing Countries*, Oxford: Clarendon Press.



- Akello, G. 2002, 'The Role of Micro-Credit in Addressing Land Degradation in Uganda', in: S. Benin, J. Pender & S. Ehui (eds.), *Policies for Sustainable Land Management in the East African Highlands*, Washington D.C. and Nairobi: International Food Policy Research Institute and International Livestock Research Institute.
- André, C. & J.P. Platteau 1998, 'Land Relations Under Unbearable Stress: Rwanda Caught in the Malthusian Trap', *Journal of Economic Behavior and Organization* 34 (1): 1-47.
- Appleton, S. 1996, 'Women-Headed Households and Household Welfare: An Empirical Deconstruction for Uganda', *World Development* 24 (12): 1811-1827.
- Bahiigwa, G., D. Rigby & P. Woodhouse 2005, 'Right Target, Wrong Mechanism? Agricultural Modernization and Poverty Reduction in Uganda', *World Development* 33 (3): 481-496.
- Baland, J.M., F. Gaspart, F. Place & J.P. Platteau 1999, 'Poverty, Food Security and Access to Land in Central Uganda: the Role of Market and Non-Market Processes', *Cahiers de la Faculté des Sciences Economiques, Sociales et de Gestion, Development Series*, No.216, Belgium: University of Namur.
- Bazaara, N. 2000, 'Civil Society and the Struggle for Land Rights for Marginalized Groups: The Contribution of the Uganda Land Alliance to the Land Act 1998', *mimeo*, IDS Civil Society and Governance Program, available at <http://www.ids.ac.uk/ids/ivsoc/final/uganda/Uga3.doc>
- Bazaara, N. 2002, 'Politics, Legal Land Reform and Resource Rights in Uganda', Paper presented at the Conference 'Africa in the New Millennium', Nile International Conference Centre, Kampala, Uganda, 9-12 December 2002.
- Benjaminsen, T.A. & E. Sjaastad 2002, 'Race for the Prize: Land Transactions and Rent Appropriation in the Malian Cotton Zone', *The European Journal of Development Research* 14 (2): 129-152.
- Busingye, H. 2002, 'Customary Land Tenure Reform in Uganda; Lessons for South Africa', International Symposium on Communal Tenure Reform, Johannesburg, 12-13 August 2002, available at: <http://www.oxfam.org.uk/resources/learning/landrights/downloads/ulac1tr.rtf>.
- Chimhowu, C. & P. Woodhouse 2006, 'Customary vs Private Property Rights? Dynamics and Trajectories of Vernacular Land Markets in Sub-Saharan Africa', *Journal of Agrarian Change* 6 (3): 346-371.
- Cutola, L. (ed.) 2007, *Changes in "Customary" Land Tenure Systems in Africa*, London: IIED/FAO.
- Daley, E. 2005a, 'Land and Social Change in a Tanzanian Village 1: Kinyambo, 1920s-1990'. *Journal of Agrarian Change* 5 (3): 363-404.
- Daley, E. 2005b, 'Land and Social Change in a Tanzanian Village 2: Kinyambo, 1920s-1990'. *Journal of Agrarian Change* 5 (4): 526-572.
- Dasgupta, M. 1987, 'Informal Security Mechanisms and Population Retention in Rural India', *Economic Development and Cultural Change* 36 (1): 101-120.
- de Bruijn, M. & H. van Dijk 1995, *Arid Ways; Cultural Understanding of Insecurity in Fulbe Society, Central Mali*, Amsterdam: Thela Publishers.
- Deiniger, K. & P. Mpuga 2003, 'Land Markets in Uganda: Incidence, Impact and Evolution over Time', *Proceedings of the 25<sup>th</sup> International Conference of Agricultural Economists (IAAE)*, 16-22 August 2003, Durban, South Africa.

- de Janvry, A., G. Gordillo, E. Sadoulet & J.P. Platteau 2001, 'Access to Land and Land Policy Reforms', in A. de Janvry, G. Gordillo, J.P. Platteau & E. Sadoulet (eds.), *Access to Land, Rural Poverty, and Public Action*, Oxford: Oxford University Press, pp. 1-26.
- de Jong, W., C. Roth, F. Badini-Kinda & S. Bhagyanath (eds.) 2005, *Ageing in Insecurity; Case Studies on Social Security and Gender in India and Burkina Faso*, Münster: LIT Verlag.
- Dekker, M. 2004, *Risk, Resettlement and Relations: Social Security in Rural Zimbabwe*, Tinbergen Institute Research Series 331, Amsterdam: Thela Publishers.
- Doornbos, M. 1976, 'Ethnicity, Christianity, and the Development of Social Stratification in Colonial Ankole, Uganda', *The International Journal of African Historical Studies* 9 (1): 555-575.
- Doornbos, M. 1978, *Not All the King's Men; Inequality as a Political Instrument in Ankole, Uganda*, The Hague: Mouton Publishers.
- Fafchamps, M. 1992, 'Solidarity Networks in Preindustrial Societies: Rational Peasants with a Moral Economy', *Economic Development and Cultural Change* 41 (1): 147-174.
- Good, C.M. 1970, *Rural Markets and Trade in East Africa; A Study of the Functions and Development of Exchange Institutions in Ankole, Uganda*, Research Paper 128, Chicago: University of Chicago.
- Heck, S. 1996, *Sales contracts and land tenure relations in Ankole, Western Uganda*, Working Paper No.205, Boston, Mass.: Boston University, African Studies Center.
- Jütting, J. 1999, 'Strengthening Social Security Systems in Rural Areas of Developing Countries', *ZEF Discussion Papers on Development Policy* No.9, Bonn: Center for Development Research, University of Bonn.
- Kafureka, L.B.M. 1992, 'The Dynamics of the Land Question and its Impact on Agricultural Productivity in Mbarara District', *CBR Working Paper* No.25, Kampala: Centre for Basic Research.
- Kasfir, N. 1988, 'Land and Peasants in Western Uganda: Bushenyi and Mbarara Districts', in: B.H. Hansen & M. Twaddle (eds.), *Uganda Now; Between Decay & Development*, London: James Currey, pp. 158-174.
- Krishna, A. et al. 2006, 'Escaping Poverty and Becoming Poor in 36 Villages of Central and Western Uganda', *Journal of Development Studies* 42 (2), pp. 346-370.
- Leliveld, A. 1994, *Social Security in Developing Countries; Operation and Dynamics of Social Security Mechanisms in Rural Swaziland*, Amsterdam: Thesis Publishers.
- Leliveld, A. 1999, 'First Progress Report on Fieldwork, presenting the Results of a Base Line Survey in the Villages Rwariire and Kyera, Mbarara District, Uganda', *mimeo*.
- Leliveld, A. 2006, 'Poverty Trap or Safety Net? Dynamics in Social Security Arrangements in Ugandan Rural Economies'. Paper presented at the Conference "The End of Poverty in Africa? Five Decades of Development and What Now?", held at the African Studies Centre in Leiden, The Netherlands, 16-17 March 2006. *Mimeo*.
- Mamdani, M. 1987, 'Extreme but not Exceptional: Towards an Analysis of the Agrarian Question in Uganda', *Journal of Peasant Studies* 14 (2), pp. 191-225.
- Nooteboom, G. 2003, *Social Security and Livelihood in Upland East Java; A Matter of Style*, available at [http://webdoc.ubn.kun.nl/mono/n/nooteboom\\_g/mattofst.pdf](http://webdoc.ubn.kun.nl/mono/n/nooteboom_g/mattofst.pdf).
- Okuku, J.A. 2006, 'The Land Act (1998) and Land Tenure Reform in Uganda', *Africa Development* XXXI (1): 1-26.

- Olson, J. & L. Berry 2003, *Land Degradation in Uganda: Its Extent and Impact*, available at [lada.virtualcentre.org/eims/download.asp?pub\\_id=92082](http://lada.virtualcentre.org/eims/download.asp?pub_id=92082).
- Pender, J., P. Jagger, E. Nkonya & D. Sserunkuuma 2004, 'Development Pathways and Land Management in Uganda', *World Development* 32 (5): 767-792.
- Place, F. and K. Otsuka 2002, 'Land Tenure Systems and Their Impacts on Agricultural Investments and Productivity in Uganda', *Journal of Development Studies* 38 (6), pp. 105-128.
- Platteau, J.P. 1991, 'Traditional Systems of Social Security and Hunger Insurance: Past Achievements and Modern Challenges', in: E. Ahmad, J. Drèze, J. Hills & A. Sen (eds.) 1991, *Social security in Developing Countries*, Oxford: Clarendon Press, pp. 112-170.
- Platteau, J.P. 1997, 'Mutual Insurance as an Elusive Concept in Traditional Rural Communities', *Journal of Development Studies* 33 (6): 764-796.
- Platteau, J.P. 2002, 'The Gradual Erosion of the Social Security Function of Customary Land Tenure Arrangements in Lineage Based Societies', *WIDER Discussion Paper No. 2002/26*, Helsinki: UNU/WIDER.
- Rugadya, M. 1999, *Land Reform: The Ugandan Experience*, available at [http://oxfam.co.uk/what\\_we\\_do/issues/livelihoods/landrights/downloads/ugaexp.rtf](http://oxfam.co.uk/what_we_do/issues/livelihoods/landrights/downloads/ugaexp.rtf).
- Sender, J. & D. Johnston 2004, 'Searching for a Weapon of Mass Production in Rural Africa: Unconvincing Arguments for Land Reform', *Journal of Agrarian Change* 4 (1&2): 142-164.
- Sender, J. & S. Smith 1990, *Poverty, Class and Gender in Rural Africa: A Tanzanian Case Study*, London: Routledge.
- Sjaastad, E. 2003, 'Trends in the Emergence of Agricultural Land Markets in Sub-Saharan Africa', *Forum for Development Studies* 1: 5-28.
- Toulmin, C. & J. Quan (eds.) 2000, *Evolving Land Rights, Policy and Tenure in Africa*, London: DFID/IIED/NRI
- Tripp, A.M. 2004, 'Women's Movements, Customary Law, and Land Rights in Africa: The Case of Uganda', *African Studies Quarterly* 7 (4), available at <http://www.africa.ufl.edu/asq/v7/v7i4a1.htm>.
- Troutt, E.S. 1994, *Rural African Land Markets and Access to Agricultural Land: The Central Region of Uganda*, Land Tenure Center, University of Wisconsin, Access to Land and Other Natural Resources in Uganda: Research and Policy Development Project, Research paper 9.
- UBOS 2003, *Uganda National Household Survey 2002/2003, Report on the Socio-Economic Survey*, Entebbe: Uganda Bureau of Statistics.
- UBOS 2006, *2002 Uganda Population and Housing Census, Analytical Report Household Characteristics*, Entebbe: Uganda Bureau of Statistics.
- van den Berg, A. 1997, *Land Right, Marriage Left: Women's Management of Insecurity in North Cameroon*, CNWS Publications 54, Leiden: Research School CNWS.
- von Benda-Beckmann, F. & K. von Benda-Beckmann 1994, 'Coping with insecurity', *Focaal* 22/23: 7-34.
- Whitehead, A. & D. Tsikata 2003, 'Policy Discourses on Women's Land Rights in Sub-Saharan Africa: The Implications of the Re-turn to the Customary', *Journal of Agrarian Change* 3 (1&2): 67-112.

## Intra-household differences in coping with illness in rural Ethiopia

Marleen Dekker

*Recent empirical evidence from Africa suggests that households may not offer all members full protection against shocks. Yet what mechanism drives such an outcome still remains unclear. This chapter explores the role of support networks in coping with health shocks in rural Ethiopia and makes a distinction between the financial and labour needs. Data on 357 households and 670 individuals show financial needs can be met through a range of strategies undertaken by individuals and/or household members, while labour needs are often not cushioned within the household and can only be met through support networks of female relatives. In the absence of such networks, women are frequently not able to cope. These findings suggest that the assumption of full insurance within the household may cover the financial consequences of health shocks but not the labour needs during periods of illness.*

### Introduction

Illness is an important risk factor affecting people in developing countries. Some illnesses are, of course, potentially life-threatening and warrant serious attention but even non-life-threatening illnesses can have grave effects on individuals and their households, for example by affecting the availability of labour for domestic and productive activities or by creating increased financial burdens due to hospital fees and other medical costs. An increasing number of studies document the importance and economic consequences of health shocks. Dercon *et al.* (2005) show that the illness of a household member is the most frequently reported shock experienced by Ethiopian households. Similar find-

ings are described by Dekker (2004a) for Zimbabwe, where the need to cover medical expenses affected rural households more frequently than other shocks. In China, Lindelow & Wagstaff (2005) found evidence of substantial reductions in income and labour supply as a result of illness. And along similar lines, Bogale *et al.* (2005) argue that the costs of illness, both financially and in time, contribute significantly to the impoverishment of households in rural Ethiopia.

Except for epidemics, illness is an idiosyncratic shock, and affects only one or a few persons at any one given time (Dercon *et al.* 2005). For this reason, persons or households experiencing health shocks can, at least in theory, rely on neighbours, friends or family to provide assistance if they are not in a position to cope themselves. This assistance, in cash, kind or labour, will usually enable the sick to recover from a non-life-threatening illness. In anthropological and economic literature, such assistance is referred to as social security arrangements (von Benda-Beckmann & von Benda-Beckmann 1994, Dekker 2004b, de Jong *et al.* 2005, Jutting 1999, Leliveld, this volume) or mutual insurance (risk sharing or informal insurance) arrangements respectively (Alderman & Paxon 1992, Platteau 1997).

The economic literature on risk sharing emphasizes the importance of personalized contacts in overcoming monitoring and enforcement problems associated with informal contracts. For this reason, studies on risk sharing are increasingly focusing on informal arrangements and social ties between households (de Weerd 2004, Fafchamps & Lund 2003, Fafchamps & Gubert 2007, Dekker 2004b, Murgai *et al.* 2002). These studies take households, or the ties between households, as the unit of analysis and the approach assumes risk is fully shared within the household. Household resources will be allocated in such a way as to best cope with a shock affecting one of its members, irrespective of their age, sex or position within the household. Recent empirical evidence suggests this assumption may not hold. For example, Dercon & Krishnan (2000) showed that women in poor households in southern Ethiopia find it more difficult than men or women in rich households to recover from illness. Indications of the absence of full insurance within the household are also found in studies in Ghana (Goldstein 2004) and Cote d'Ivoire (Udry & Duflo 2004). These economic studies, however, only consider outcomes and barely explore the mechanisms leading to such unequal outcomes.

When discussing the results of Dercon & Krishnan's study with Ethiopian women, I asked for their perception of women's recovery from illness and whether they could explain the observed differences in recovery between men and women. Indeed, they confirmed the differences and argued that it could be related to a difference in support networks. As women usually change their place of residence when they get married, they have fewer female relatives who can help them out if they become ill. This is not necessarily in terms of finding

money for healthcare but of providing labour for domestic activities that are invariably the responsibility of women, such as collecting water, cooking, taking care of the children and the sick, and cleaning. A woman who moves away from her village of birth to live in her husband's village does not have a network of female relatives on whom to rely for help with her domestic responsibilities and is therefore more likely to resume work before being fully recovered or to continue to work while she is ill. This, according to the women, results in the reduced possibility of her recovering quickly from illness.

This chapter explores differences in coping with illness between men and women and investigates the hypothesis advanced by Ethiopian women that gender differences in recovering from illness result from differences in social support networks. Such networks can be either (i) a source of transfers to meet cash needs for medical expenditures; (ii) a source of in-kind transfers such as prepared food or other household necessities; and/or (iii) a source of labour to fulfil domestic and/or productive responsibilities. The chapter focuses particularly on differences between women who moved away from their place of residence when they got married and those who continued to live in their own village. The analysis presented is based on data collected in Turufe Kechema village in Oromiya Region, Ethiopia between May and August 2005. The survey data is supplemented with qualitative material collected in the same village by the author and researchers from WeD-Ethiopia.<sup>1</sup>

Women are ill more often than men and experience longer periods of illness. Compared to women who did not move when they got married, women who did more often reported having experienced a shortage of labour when they were ill. In addition, fewer had access to free medical care and they more often failed to totally recover from their illness. Interestingly, they were able to generate higher amounts of money when they did recover from illness. These findings suggest that relocated women are more able to cope with the financial needs arising from health shocks through individual, household or network resources than with labour needs as they do not have access to a network of female relatives.

The chapter is organized as follows. The first section describes the data used in the analysis and is followed by a section setting out the context of the study and the relevant socio-economic characteristics of the village. The next section presents empirical information on the effects of health shocks and the role of networks in coping strategies, both for the total population and disaggregated

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<sup>1</sup> WeD-Ethiopia is part of the Wellbeing in Developing Countries research programme at the University of Bath, UK. WeD-Ethiopia is a collaborative project between the University of Bath and the Department of Social Anthropology at Addis Ababa University, Ethiopia.

between men and women. The differences in the effect of health shocks and coping strategies between women who changed their place of residence when they got married and those who did not are then discussed. The following section explores the role of networks as an explanation for these results by reviewing the effects of wealth, the presence of other (female) adults in the household and the women's length of residence in the village. Some conclusions are then drawn.

## Data<sup>2</sup>

The data used in this chapter are unique and differ from conventional survey data in two important ways. First, unlike most surveys that take a random sample from a village population, we interviewed all households in Turufe Kechema using a household questionnaire about household composition, household assets, any land used/owned for cultivation, livestock ownership and household food stores.<sup>3</sup> Secondly, within each household we aimed to interview at least two adults, while in most conventional surveys questionnaires are addressed only to the household head. In many cases we interviewed both the husband and wife. If one of them had died, was involved in labour migration or the spouses were too old to support themselves, we also interviewed adult sons or daughters living with their parents (where applicable). If the children of a widowed respondent were too young, only one respondent per household was interviewed. Table 8.1 presents an overview of the number of respondents interviewed in households.

We asked each respondent about his/her marital status and contract, pre-marital and current assets, participation in economic activities, participation in local organizations, credit transactions, social position and perceptions, food

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<sup>2</sup> The Turufe Kechema data set (TK data set) was collected between May and August 2005. Questionnaire data were collected by Fitsum Wakoya, Luwam Yohannes, Sultan Abduraman and Tilahun Desta of the Department of Agricultural and Resource Economics, Debu University, Awassa, under the supervision of the author. Indispensable research support was provided by Rediet Bayu, Adane Hirpo (Debu University), and WeD-Ethiopia researchers Alula Pankhurst, Bizuayehu Ayele, Yohannes Gezahegn (Department of Social Anthropology, Addis Ababa University) and Pip Bevan (Bath University). The funding for data collection from the Amsterdam Institute of International Development and the Netherlands Organisation of Scientific Research (NWO) is gratefully acknowledged. Finally, we would like to thank all respondents from Turufe Kechema village who participated in the research and the support we received from key persons in the community.

<sup>3</sup> As we observed the entire population of the village and not only a selection, significance tests were not performed when comparing differences in outcome.

Table 8.1 Composition of data set: households and individuals

Number of respondents per household	Frequency	Percentage	Cumulative number of individuals
1	68	19.1	68
2	266	74.5	600
3	22	6.2	666
4	1	0.3	670
Total	357	100	670

Source: TK data set

security, illnesses and coping strategies. In total, 357 households and 670 individuals were interviewed.

Turufe Kechema is part of two long-term research projects involving the collection of qualitative and quantitative information: the Ethiopian Rural Household Survey (ERHS) and the Well-being in Development project (WeD-Ethiopia).<sup>4</sup> These projects have already yielded a wealth of information relevant to the study that is referred to in the remainder of the chapter.

### Context of the study

Turufe Kechema is one of three villages in a *kebele* in Shashemene *wereda* in the Eastern Shewa Zone of Oromiya Region. It is in the Rift Valley Lake area, just over 10 km northeast of Shashemene town and some 250 km south of the Ethiopian capital Addis Ababa. It is at an altitude of approximately 2,000 m in a plain area with fertile soil. There are two rainy seasons: the main rains, *meher*, between June and September, and the *belg* rains in March and April. People cultivate cereals (*tef*,<sup>5</sup> maize, millet and wheat) and vegetables (potatoes and onions) for their own consumption and to sell. Many are actively engaged in trading and other non-agricultural activities to generate or supplement their incomes. The village has six small shops with basic necessities and ten drinking houses that sell a locally brewed spirit. Turufe Kechema has good access to local markets and an all-weather road connects the village to the main road from Addis Ababa to the south and Kenya. Crops and products can be sold at Kuyera market or at the markets in Shashemene and Negele, which are slightly further away. Potatoes are also sold to merchants who take them directly to Addis Ababa (Gezahegn *et al.* 2006).

<sup>4</sup> The ERHS is being conducted by the Department of Economics, Addis Ababa University in collaboration with the Centre for the Study of African Economies, Oxford University, UK and the International Food Policy Research Institute, Washington, DC.

<sup>5</sup> *Tef* or *teff* is a local grain.





Map 8.1 Ethiopia and research location



Photo 8.1 Going to the market in Kuera [Photo: Marleen Dekker]

### *Social composition*

Turufe Kechema was established during the villagization programme in 1985, when people who lived scattered around the *kebele* territory were organized into compact villages to facilitate service provision. Although located in an area originally inhabited by Oromo people, the rural areas surrounding Shashemene town are known for their migration history (Gezahegn *et al.* 2006). This is clearly reflected in the ethnic composition of Turufe Kechema. Just over half of the respondents in this study are Oromo. Amhara, Tigrayan and Wolayita people form relatively large minorities, while the Kambata and Hadiya are considerably smaller in number. Gamo, Gurage, Sidama and Silte account for only a tiny fraction of the village's population.

This variety of backgrounds is also visible when considering the different religious denominations found in the village. Islam, the Orthodox Christian religion and Kalehiwot (Protestant) are the religions most adhered to, while a minority attend the Catholic Church. Religion is in general strongly determined by ethnic background: Amharas and Tigrayans predominantly attend the Orthodox Christian Church, the Wolayita and Kambata are mainly followers of Kalehiwot, while the Oromo are Muslim. However, religious membership is not fully determined by ethnicity. Gezahegn *et al.* (2006) report that it is not unusual for members of one household to adhere to different religions, suggesting that there is some freedom of religion in the village. Although not common, marriage to someone outside one's ethnic group or of a different religion is possible.

### *Distribution of land and wealth*

Over the years and due to the growing population, land has become a scarce commodity in Turufe Kechema (Pankhurst & Bevan n.d.). Households own on average 0.55 hectares of land. At 0.675 hectares, the average acreage under cultivation is slightly higher, indicating farmers are accessing land outside the village through sharecropping or renting arrangements. The distribution of land-ownership reflects differences between migrants and the original Oromo inhabitants. Landlessness is significantly higher in households with non-Oromo heads (ranging from 19% to 50%) compared to households with Oromo heads (10%). Landlessness does not necessarily mean the household does not have access to land for crop cultivation; many households who do not own land themselves, rent or sharecrop land from landowners in the village. Given the skewed distribution of land across ethnicity of the household head, these renting and sharecropping arrangements are often interethnic.

Interestingly, the distribution of land ownership in favour of the households with Oromo heads is not reflected in the distribution of wealth across households (see Table 8.2). This table reports the proportion of households in each

wealth quintile according to the ethnicity of the household head.<sup>6</sup> Households with Amharan or Tigrayan heads are well represented among the richer households. Respectively 32% and 42% belong to the highest quintile, while only 19% of Oromo belong to this wealth category.<sup>7</sup>

*Table 8.2* Ethnicity of the household head and distribution of wealth (row %)

Ethnicity	Quintiles:				
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>
Oromo (N=182)	23.1	22.0	18.7	17.6	18.7
Amhara (N=37)	13.5	16.2	16.2	21.6	32.4
Tigrayan (N=40)	5.0	7.5	22.5	22.5	42.5
Kambata (N=16)	31.3	12.5	6.3	50.0	0
Wolayita (N=37)	19.0	27.0	29.7	8.1	16.2
Hadiya (N=17)	23.5	17.7	17.7	35.3	5.9
Total	20.0	19.3	19.7	20.0	21.1

Source: TK data set

#### *Marriage and location of residence*

In many parts of Ethiopia, including the area around Turufe Kechema, it is common for women to relocate to their husband's village when they get married.<sup>8</sup> Interestingly however, a considerable number of married women in Turufe Kechema originate from the village itself: more than half of the women interviewed (55%) indicated they had not changed their location of residence

<sup>6</sup> These quintiles are based on the ranking of households from poor to rich on an asset-based wealth index. The first quintile contains the bottom 20% of the distribution, i.e. the poorest, the second quintile represents the next 20% of households, the third quintile 41-60%, etc., while the fifth quintile represents the richest 20% of households. The index is based on housing characteristics (toilet facilities and iron roofing sheets) and ownership of assets (plough, sickle, spade, lamp, spray, cart, radio, bicycle, sewing machine, watch, clock, modern bed, blanket, mattress, sofa, table, wardrobe, leather mat and another house outside the village). For more details on the construction and use of asset-based wealth indices, see Sahn & Stifel (2000) and Dekker (2006) who constructed and reviewed the use of asset-based wealth indices in the Ethiopian context.

<sup>7</sup> Given the existing distribution of land in the village, these wealth differences between ethnic groups are counterintuitive. This discrepancy may (at least in part) be related to social networks in the sense that the obligations and norms related to a strong support network may in fact hamper individual economic development. The analysis required to further explore such a relationship is beyond the scope of this chapter.

<sup>8</sup> In Oromo culture this is related to the principle that marriage within one clan is not allowed.

when they got married. In contrast, only 5% of the men interviewed indicated having changed residence upon marriage. Various reasons explain this diverging pattern. First and foremost, daughters from families who are descended from the original settlers in the area may inherit land from their fathers, especially if they do not have brothers who land can be passed on to. In such cases, the daughter(s) will establish their home in their natal village and their husband will come to live with her (and her family), either from within the village or from another village. Secondly, daughters of families who are descended from the original settlers may marry (sons of) migrants who came to live in the village. Or thirdly, daughters of migrants may marry into families descending from original settlers in the area. This is, for example, reflected in the ethnic background of women who did not change residence when they got married (see Table 8.3).

Table 8.3 Women's ethnicity and change of residence (row %)

Ethnicity	Change of residence	No change of residence
Amhara (N=42)	46	54
Hadiya (N=25)	26	74
Kambata (N=28)	15	85
Oromo (N=170)	57	43
Tigrayan (N=36)	27	73
Wolayita (N=39)	38	62

Source: TK data set

Hadiya, Kambata, Tigrayan and Wolayita women more often do not change residence when they marry, while the largest group of women relocating on marriage is Oromo women. Still, just over 40% of Oromo women did not relocate when they got married, indicating the first two reasons mentioned above are certainly important.

Although a change of residence with marriage may affect the informal social ties between women and their fellow villagers, as advanced by the respondents referred to in the introduction, this does not hold for more formal ties in the village. Table 8.4 presents information on participation in local organizations.<sup>9</sup>

<sup>9</sup> Note that the measure used here is based on dummy variables. For example, the variable *iddir* is equal to one when the respondent indicated s/he was a member of one or more *iddirs*. This is admittedly a very crude measure and does not distinguish between the number of associations the respondent is member of. Especially in the case of *iddir*, membership in multiple *iddirs* (up to four) has been recorded. The

Table 8.4 Percentage of women participating in local organizations

Institution	Change of residence (N=145)	No change of residence (N=176)
<i>Iddir</i>	87	82
Cattle <i>tera</i>	32	42
<i>Equb</i>	6	8
<i>Mahber</i>	16	22
<i>Sembati</i>	2	1
Government clubs	21	11

Source: TK data set

Photo 8.2 *Iddir* payments

[Photo: Marleen Dekker]

In the village there are *iddirs* (associations that organize funerals and offer a form of funeral insurance), cattle *tera* (associations of cattle owners who rotate responsibilities for herding), *equb* (a rotating savings and credit association), the religious *mahber* and *sembati* (associations in which members prepare feasts, religious get-togethers and generally help each other in all aspects of life) and associations initiated by the local government. The latter were established only a few years ago and aim to organize women, men and youth respectively.<sup>10</sup> In the table, each cell represents the proportion of women who participate in a listed organization and each row compares the differences between women who relocated or not.

Although there are differences between women who relocated and those who did not, these are generally small. Notable exceptions are memberships of cattle associations and participation in organizations initiated by local government, such as the mothers'/women's association. Local women participate more often in the first, while membership of the mothers' association is more often reported by those who relocated. It could be

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difference in the number of memberships between men and women and between women who relocated and those who did not should be studied in more detail.

<sup>10</sup> The activities of these associations have been limited to courses on how to organize the groups and women have been educated on their rights, participation in the community and the use of contraceptives. Future activities could include savings and credit schemes but these had not been arranged at the time of the study.

that the need to have good connections to local government structures is perceived to be more important by women who have moved away from their village of birth in order to compensate for informal social ties. The average number of memberships in associations is two, both for women who relocated when they got married and those who did not.

#### *Responsibilities within the household*

Several studies on the position of women in Ethiopia have documented a heavy workload for women and girls, especially regarding domestic activities such as collecting firewood and water, preparing food, cleaning and child care (von Massow 2000, Mukhopadhyay 2001). Von Massow reports that traditional and religious beliefs preserve this strict division of labour. Although the prevailing ethics in Turufe Kechema are not much different from those in Ethiopia in general (Gezahegn *et al.* 2006), in practice women do participate in economic activities, albeit less frequently than men. Slightly under half of the women in the survey cultivate crops on agricultural land (either alone, with their husband or with other non-household members), while 61% are involved in the cultivation of crops at the homestead. Just over 40% are involved in marketing the crop, most doing so independently of their husbands. Although participation by women in non-farm economic activities is lower (ranging from 2% to 14% of the women interviewed), some activities such as shop keeping, trading, brewing and the sale of dairy products, firewood or prepared food are reported more frequently by women than men. At the same time, men are engaged in more activities than women, reporting an average of 3.0 activities compared to 2.3 activities for women.

Although a small majority of women have an independent source of income that provides them with some autonomy and status, women in general have a lower social status than men. Traditionally, this is part of the so-called 'patriarchal bargain' whereby women, when they marry, exchange autonomy and decision-making power for protection and support from their husbands (Kandiyoti 1988). This implicitly implies it is the responsibility of the husband to provide his wife with adequate protection against shocks.

### Illness and coping

In the individual questionnaire, respondents were asked to indicate whether they themselves had been ill over the past year.<sup>11</sup> If so, they were asked a range of questions about their symptoms and the duration of the illness, how it affected

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<sup>11</sup> Other questions in this part of the questionnaire asked about the illnesses of other household or family members, and deaths in the household or family. In this chapter we restrict the analysis to cases of illness reported by the respondent him/herself.

them and if and how they were able to meet any related medical expenses. We first explore the general pattern of illness and coping reported by the respondents and touch upon differences between men and women. In the next section, this is followed by a more in-depth exploration of heterogeneity among women, notably related to their migration status.

*Illnesses: differential impact men and women*

Table 8.5 presents selected indicators related to self-reported illness and provides insights into the effects of illness on respondents. The results clearly indicate that women experience illness more often than men; 64% of women reported at least one period of illness in the past year compared to 50% of men. The total number of days this illness lasted was also considerably higher for women: on average they were ill for 54 days compared to 34 days for men. This difference however decreases to 22 and 27 days respectively when corrected for chronic illnesses with long-lasting effects (in this case measured as lasting longer than 300 days).

*Table 8.5* Indicators on the effect of illness: frequency percentages for all respondents and men and women respectively

Indicator	All respondents ( <i>N</i> = 668)	Men ( <i>N</i> =308)	Women ( <i>N</i> =360)
Illness in the past year	58	50	64
<i>For those who reported illness</i>	( <i>N</i> =385)	( <i>N</i> =153)	( <i>N</i> =232)
Effect: - labour	21	17	24
- cash	13	6	17
- cash and labour	66	75	59
Income: - no effect	25	22	28
- moderate effect	50	51	49
- severe effect	25	26	23

Source: TK data set

If we look more closely at the effect of the illness on the respondents, distinguishing self-reported effects on labour, cash and income, men experienced a labour shortage slightly more frequently than women, either in combination with a need for cash or not; 92% and 83% respectively. At the same time, men more often report an effect on their income compared to women. Taken together, these results suggest that although women are more often confronted with health problems, the impact is no worse for them than for men. This is in contrast to the findings reported by Dercon & Krishnan (2000).

It is also important to consider the way individuals or their fellow household members met the medical expenses they incurred due to their illness. A wide range of responses are mentioned by respondents and illustrated in Table 8.6.<sup>12</sup> The most frequently recorded response is the sale of assets, ranging from selling cattle or land to the sale of part of their harvest to cover medical expenses. The second most frequent was to do nothing, using self-treatment or waiting until the illness was over, a response given by a quarter of respondents who had been ill in the past year. Some 15% used savings to cover medical expenses. A network strategy, i.e. borrowing money or getting assistance from friends, neighbours or relatives was reported by just over 10% of respondents. Free medical care through a letter from the *kebele* was obtained by 5% of the respondents reporting illness. Borrowing money from a moneylender or *iddir*, working longer hours and other strategies were of minor importance.

**Table 8.6** Responses to illness reported by respondents who were ill (in %) and total amount of money generated in response to illness

Response	All respondents (N=376)	Men (N=153)	Women (N=224)
Sale of assets	32	31	32
Use of savings	17	19	15
Network strategy	14	12	14
Free medical care	5	7	4
Borrowing money from moneylender	3	5	2
Borrowing money from <i>iddir</i>	2	1	2
Increased work by h'hld members	3	3	3
Other	1	1	1
Nothing	24	21	27
Amount (in Birr)	106	85	120

Source: TK data set

Comparing the third and fourth columns of Table 8.6, there are only slight differences in responses to the illnesses of men and women, while the bottom row does show women's illnesses on average triggered the generation of more money compared to men's illnesses. Therefore, the findings presented in this section do not offer a consistent perspective on the differences in coping with illness between men and women, as reported by Dercon & Krishnan (2000). Although women report illnesses more often and slightly longer episodes of

<sup>12</sup> In this list of coping strategies, no distinction is made between the person who actually took the action, e.g. whose assets were sold, whose network was used, etc.



illness, they do not report a shortage of labour and effects on income any more frequently. At the same time, men and women display very similar strategies in coping with illness and larger amounts of money are generated to deal with the illness of a woman. To gain more insight into the possible mechanism behind the differences in recovery from illness between men and women, the next section looks in more detail at the existence of heterogeneity between women with respect to the effects of coping with illness.

### Illness: Heterogeneity between women

To further explore the hypothesis advanced in the introduction that differences in support networks may affect the impact of illness and coping strategies, we disaggregate our findings to women who moved when they got married and women who did not. This change in residence is a proxy for informal support networks of female relatives that can provide labour for women during episodes of illness and/or financial assistance to meet medical expenditures.

Table 8.7 shows that there is no difference in incidences of illness between women who relocated when they got married and those who did not. Although they report slightly shorter episodes of illness (on average 65 compared to 46 days), this difference disappears when correcting for chronic illnesses. There is, however, a difference in the impact of illness in line with the hypothesis advanced by Ethiopian women. Although the majority in both groups of women reported a labour shortage as a result of illness, women who changed residence on marriage more often reported such shortages, either in combination with cash needs or not (90% and 79% respectively), while they did not report a differential effect on income.<sup>13</sup>

When considering the coping strategies reported in Table 8.8, differences between women are somewhat more pronounced compared to the differences between men and women reported in the previous section. Three differences are of particular interest here. First, women who did not change residence use a network strategy more often than those who moved, which is indicative of differences in support networks. At the same time, women who changed their place of residence when they got married report more often that nothing was done when they were ill. And they were less often able to use free medical

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<sup>13</sup> 28% of both groups reported no effect on income. Of the women who reported an income effect from the health shock, those who changed residence slightly more often experienced severe income effects compared to those who did not move.

**Table 8.7** Indicators of the effect of illness: frequency percentages for those who changed residence and women who did not change residence

Indicator	All women (N=330)	Women who changed residence (N=148)	Women who did not change residence (N=182)
Reported illness	65	64	65
Effect: - labour	24	27	22
- cash	17	9	22
- cash and labour	59	62	56
Income: - no effect	28	28	28
- moderate effect	50	47	55
- severe effect	21	26	17

Source: TK data set

**Table 8.8** Responses to illness reported by women who were ill (in %)

Response	All women (N=208)	Women who changed residence (N=92)	Women who did not change residence (N=116)
Sale of assets	32	28	34
Use of savings	16	18	14
Network strategy	14	10	17
Free medical care	4	1	6
Borrowing money from moneylender	2	3	2
Borrowing money from <i>iddir</i>	2	2	1
Increase work by h'hld members	2	3	2
Other	1	0	2
Nothing	27	34	22
Quantity in Birr	120	140	88

Source: TK data set

services organized through the mediation of the *kebele*. These results support the argument made by respondents that women who relocate may find it more difficult to find support via their network of informal relations. This does not only apply to the informal ties that there may be between a woman and her (female) relatives or neighbours, but also, through a more formal channel such as the *kebele* office. A letter from the *kebele* office can only be obtained if 'proof of need' is supported by other members of the village, thus reinforcing the importance of informal ties. Given the low number of respondents reporting

free medical services in the first place (eight women in total), the differences reported here should not be given too much weight.

A possible explanation for the lack of response to an illness could be that the illness is not serious in nature and does not need attention, rather than a lack of support from their household or network. Detailed information on the effect of the illnesses provide initial evidence that this is not the case. For women who experienced a period of illness, there is no significant difference in the duration of the illnesses between those who reported a response and those who did not. Moreover, illnesses not responded to have predominantly resulted in a lack of labour for domestic or productive activities rather than a lack of cash or a combination of both lack of cash and labour.

So far we have discussed the type of strategies undertaken in response to illnesses without discussing the outcome in terms of the amount of money generated that is presented in the last row of Table 8.8. At Birr 140, the illness of women who changed residence generated a 60% higher amount of money compared to the Birr 88 reported by women who did not move.<sup>14</sup> This suggests that women who changed residence were quite successful in obtaining money to get treatment. This is in stark contrast to the reported difficulty in dealing with shortages of labour, indicating that it is important to make a distinction between financial and labour effects associated with health shocks. This important observation has two implications. First, a network response to financial needs as a result of health shocks is only one of various alternative responses, while there is no alternative to the network response to labour needs caused by health shocks. Although the identity of the person within the household who actually implemented the response was not considered, this argument can be linked to the assumption of full insurance within the household. The findings then suggest that a household does indeed provide insurance for financial needs but not for labour needs associated with illness.

### Explaining heterogeneity among women

The results presented above indicate differences in the labour effects of health shocks between women who relocated when they got married and those who did not. So far, we have assumed that these differences can be attributed to differences in informal support networks associated with the relocation of women when they get married. After all, women who marry someone from another village move away from their female relatives (sisters, mother, grand-

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<sup>14</sup> The average amounts of Birr in Table 8.8 refers to *all* women, i.e. including those who did *not* generate any money in response to the health shock, i.e. the category 'nothing'.

mother, aunts, sisters-in-law and nieces) who can take over domestic responsibilities during episodes of illness if they live in the same village.

As no information on the number of female relatives a woman has in the village was recorded, we have worked with the variable ‘change of residence’ as a proxy indicator of such informal support networks. Although it is likely that change of residence is a good proxy for the availability of an informal support network of female relatives (given the exogamous and patriarchal marriage arrangements in Turufe Kechema), it is important to consider in more detail the effect that other characteristics of the respondents and their households might have on the relationship between labour needs during illness and informal support networks. Here we consider the influence of household wealth, the presence of other (female) adults in the households and the length of residence in the village, as these characteristics may potentially influence the observed relationship between change of residence and coping with illness.

#### Wealth

As the likelihood of obtaining assistance through networks is often associated with wealth (see for example De Weerd 2004 and Leliveld, this volume), we first consider the effect of wealth. It might very well be that the poorer section of the population will find it more difficult to gain access to support from their networks to meet labour needs. Table 8.9 reports the proportion of respondents who experienced a labour shortage during periods of illness for each of five wealth quintiles. Although the majority of respondents in each wealth quintile reported a shortage of labour, among all the respondents, those from households in the highest quintile (i.e. the richest) are least likely to experience a labour shortage during a time of illness (as seen in the second row). This difference is even more pronounced for women (see Table 8.9, third row). This difference

*Table 8.9* Percentage of respondents reporting labour shortages during illness across wealth quintiles

	1 <sup>st</sup> quintile	2 <sup>nd</sup> quintile	3 <sup>rd</sup> quintile	4 <sup>th</sup> quintile	5 <sup>th</sup> quintile
Labour shortage: all respondents ( <i>N</i> =380)	92	93	88	89	74
Labour shortage: women ( <i>N</i> =226)	86	93	84	87	59
Labour shortage: women who relocated ( <i>N</i> =94)	95	95	86	87	86
Labour shortage: women who did not relocate ( <i>N</i> =116)	84	91	81	86	37

Source: TK data set

may be associated with the presence of domestic servants who perform most of the domestic activities in better-off households. In fact, our data indicates wealthier households more often have domestic servants than poorer households and women in households with a domestic servant reported lower incidences of labour shortages when confronted with illness compared to women in households with no domestic servants.<sup>15</sup>

Interestingly, the likelihood of women who relocated experiencing labour shortages during illness is high across all quintiles, and only slightly lower for the richest quintiles. At the same time, women from rich households who did not move when they got married reported very low incidences of labour shortages compared to their counterparts from poorer households. The impact of relocation on marriage cannot be explained by differences in the presence of domestic servants, as women who relocated are equally likely to live in a household with domestic servants compared to women who did not move.

To sum up, women in richer households experience labour shortages after health shocks less frequently except if they have changed their place of residence when they got married. If it is assumed that the lack of labour shortages for women in richer households is related to having easy access to labour through support networks, this tentatively suggests that preferential access to labour support associated with wealth is conditional on the presence of an informal support network. These results suggest that wealth plays a role in providing access to labour support but its effect is only felt in the presence of female support networks.

#### *Presence of other adults in the household*

Another possibility to be considered in more detail is that labour support is not provided by informal support networks outside the household but by a daughter or son or other (female) relative in the household. They may take over domestic activities when respondents are ill and unable to work. In such cases, the labour effects of illness could be cushioned within the household. The presence of other (female) adults within the household is thus expected to lead to a lower incidence of labour shortages during illness. To explore this possibility, the correlation between the presence of (female) adults within the household and the incidence of labour shortages during illness was considered (Table 8.10).<sup>16</sup> The second and third columns in this table show no correlation between the

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<sup>15</sup> 85% of women in households without a domestic servant reported labour shortages when confronted with illness, compared to 57% of women in households with a domestic servant. Only households in the fourth and fifth wealth quintiles reported having a domestic servant.

<sup>16</sup> Here, adults is measured as the number of persons over 15 years of age within the household.

presence of (female) adults in the household and incidences of labour shortages during illness among women, except for women who had changed their place of residence when they got married. The direction of the relationship is, however, not what would have been expected as there is a positive relationship: women who changed residence and live in households with more female adults are more likely to face labour shortages, which suggests that labour shortages are no more easily cushioned within the household when a woman has moved.<sup>17</sup> This counterintuitive result may be explained by the fact that in the absence of female relatives nearby, female adults in households of women who changed residence already undertake a multitude of tasks and tasks cannot, therefore, easily be transferred from one person to another in cases of illness. Unfortunately, we do not have the data to investigate this issue further.

*Table 8.10* Pearson's correlation coefficients of labour shortage with selected variables\*

	Female adults	Adults	Years of residence in the village	Age
For all women reporting illness (N=227)	0.04 (0.54)	-0.05 (0.41)	<b>-0.25</b> <b>(0.00)</b>	<b>-0.22</b> <b>(0.00)</b>
For women who changed location of residence (N=95)	<b>0.28</b> <b>(0.01)</b>	0.10 (0.34)	0.09 (0.36)	-0.04 (0.71)
For women who did not change location** (N=116)	-0.07 (0.41)	-0.14 (0.11)	<b>-0.33</b> <b>(0.00)</b>	<b>-0.33</b> <b>(0.00)</b>

\* Significance levels of correlation coefficient in brackets.

\*\* For this group of women, length of residence in the village is equal to their age, since they were born in the village.

Source: TK data set

#### *Length of residence in the village*

A third possibility to explore in more detail is the possible temporal nature of the lack of an informal support network of female relatives associated with a change of residence at the time of marriage. As time goes by and women live in their new home for longer, they will establish contacts and participate in local networks that could potentially provide alternative sources of (wo)manpower when facing labour shortages during episodes of illness. We do however find a negative relationship between the length of residence in a village and labour shortages for women, but not for migrant women. This is illustrated by the

<sup>17</sup> There is no significant difference in the number of female adults between households for women who changed residence and those who did not.

positive, albeit insignificant, correlation coefficient in the fourth column of Table 8.10.<sup>18</sup>

There are at least two possible interpretations for the lack of association between length of residence in a village and experiencing a labour shortage during periods of illness for women who had changed their location of residence at the time of their marriage. Either the length of residence does not influence the development of alternative support networks or the length of residence in the village captures another characteristic of women that is also associated with the likelihood of shortages of labour during periods of illness.

The wealth of our data allows us to assess both options. First, the relationship between the length of residence in the village and the development of alternative support networks are considered. We proxy the development of alternative support networks by looking at three outcomes such networks might generate: the number of friendships in the village and the participation of respondents in local labour-sharing arrangements<sup>19</sup> and informal credit transactions. For women who changed their location of residence, there appears to be no positive relationship between length of residence and participation in informal social networks, but only between length of residence and participation in local institutions such as *iddir* and *equb*.<sup>20</sup> Also, there are no differences in participation in informal networks between women who relocated when they got married and those who did not. This suggests that women who move are indeed able to build up alternative support networks when they go to live in a new village. The observed differences in labour needs suggest, however, that such networks are not capable of replacing the possibility of obtaining labour assistance by female relatives when illness strikes. These findings imply a

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<sup>18</sup> Migrant women's average length of residence in a village (N=92) is 23 years. Women experiencing a labour shortage had on average lived 5 years longer in the village compared to those who did not experience a labour shortage. Those experiencing a shortage of labour had lived in the village for 25 years on average, while those with no shortage of labour had lived in the village on average 20 years.

<sup>19</sup> The two most common labour-sharing arrangements in the village are *debo* and *wenfel*. For *debo*, a person invites friends and neighbours to work for him/her and in return provides food and drinks to those participating, while *wenfel* is a contractual reciprocal arrangement in which each participant contributes labour to the other participants, sometimes in return for food. *Debo* and *wenfel* can be organized for agricultural activities, building houses or organizing (religious) feasts (Gezahegn *et al.* 2006).

<sup>20</sup> In fact, there is a negative relationship between the length of residence measured in years and the number of friends (-0.14, sig. 0.10), the number of labour-sharing arrangements participated in (-0.16, sig. 0.05) and the number of informal credit transactions (-0.23, sig. 0.00). The correlation between length of residence and number of memberships in local organizations is positive (0.36) and significant (0.00).

difference in the quality of networks, differentiating between female relatives in a women's natal village and the alternative networks she may make after relocating on marriage.<sup>21</sup>

It is important to realize that length of residence in the second situation is strongly associated with the respondent's age.<sup>22</sup> Moreover, Table 8.10 (column 5) shows a negative correlation between age and labour needs: older women are less likely to report a shortage of labour when confronted with illness. It might be that older women face fewer labour shortages because they have already delegated tasks to daughters (in-law) who live in their household. Yet, this does not explain why the negative correlation is not significant for women who relocated upon marriage, especially since these women do not have any fewer female adults within the household to whom they could have delegated domestic chores. This brings us back to the availability of support networks and suggests that only in the presence of female support networks are older women more eligible for labour support and thus less likely to experience labour shortages in response to illness. This eligibility may be related to the social status associated with seniority, either because increasing age is associated with an increased likelihood of labour needs and/or because older women have been able to build up stronger networks over time.

In summary, these results indicate that the length of residence does not affect the likelihood of experiencing labour shortages. Although women who have relocated are able to develop alternative networks, these may not provide the same quality of support as those in their natal village. In addition, age decreases the likelihood of reporting labour shortages, suggesting social status and networks related to seniority facilitate access to labour in cases of labour needs related to health shocks.

## Conclusion

This chapter has explored intra-household differences in coping with illness using data on 357 households and 670 individuals from one Ethiopian village. Various dimensions have been discussed related to illness, such as the incidence and length of illness, its effects and coping strategies. The central hypothesis explored was that gender differences in recovering from illness result from differences in participation in social networks. Such networks can be either a source of transfers to meet cash needs for medical expenditures, in-kind trans-

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<sup>21</sup> Dekker (2004b) reports similar differences for support networks of resettled farming households in Zimbabwe who had moved away from their kin-based support networks. Although the resettled farmers developed new networks, these networks did not provide assistance as frequently as kin or ethnicity-based networks.

<sup>22</sup> Pearson's correlation coefficient of 0.86, sig. 0.00.



fers or access to labour to help fulfil domestic and/or productive responsibilities. Female respondents in Turufe Kechema advanced the argument that women who moved away from their female relatives when they got married might find it more difficult to find someone who could take over their domestic and productive activities if they were ill. The focus was therefore on differences between women who moved away from their place of residence when they got married compared to those who remained in their village of residence. Differential access to support networks would appear to be one of the mechanisms that might explain the absence of full insurance within the household, and which is found elsewhere in the literature.

We found some differences between men and women in the frequency and length of illness. Women are ill more often than men and also experience longer periods of illness. At the same time and in response to women's illnesses, higher amounts of money are generated but women did not experience a shortage of labour any more often as a result of their illness. These findings do not provide conclusive evidence of differences in coping with illness between men and women. Interestingly however, a distinction between women who changed their place of residence when they got married and those who did not does show some noteworthy differences. Compared to women who remained in their natal village, women who moved to their husband's village when they got married reported a shortage of labour in response to illness more often but use a network strategy less frequently to cope during the illness and more often reported not having undertaken any action in response to their illness. This indeed provides support for the hypothesis advanced by respondents in the village.

At the same time, it was also noted that if there was any response to the illness of a woman who relocated when she got married, the amount of money received was higher than that received by women who had stayed in their natal village. This suggests that alternative strategies can replace some network functions, while others are exclusive to networks and cannot be substituted by others. In the case of illness, we found that networks are only one of a range of potential sources of cash to help meet medical expenses. If network support is not available, it can potentially be obtained by employing other strategies, such as the sale of assets. In the case of labour shortages, assistance through networks cannot easily be replaced and, in fact, failure to receive assistance through one's network is not easily substituted by other methods. An exploration of alternative explanations for the observed results shows that a lack of support from female relatives cannot be counterbalanced by wealth, the presence of other (female) adults within the household or the development of alternative informal support networks in the new area of residence.

Consequently, it is essential to disentangle the different effects of health shocks: the financial needs to cover medical expenses, and labour needs resulting from labour shortages to perform domestic and/or productive activities. Our results suggest that the assumption of full insurance in the household may hold for the financial needs associated with temporary health shocks, but not for the labour needs resulting from such events. These findings are not only relevant for our understanding of intra-household dynamics but have direct implications for policy too. Current policy initiatives in the field of micro health insurance are focusing on the financial needs of those affected by illness and aim to improve health and mitigate the effect of risk on long-term economic growth. Previous research has indeed shown that meeting these financial needs is as important as existing individual or household coping strategies, such as the sale of assets and the 'obligation' to participate in informal insurance arrangements, as they may constrain the potential for long-term economic growth. We certainly do not want to deny the relevance of micro-finance initiatives in this field but the information presented in this chapter provides some initial evidence that financial needs associated with health shocks may not necessarily be the most important or that these needs are the most difficult to meet. Presenting micro-health insurance as the solution to the impact of illness ignores the labour needs associated with these shocks and the constraints they may pose for recovery. The effects of micro-insurance on women's health may not be as great as expected. The evidence presented here suggests that recovery from illness is not only affected by economic factors but also by cultural practices, such as the position of women in patriarchal marriage arrangements that requires them to leave their natal village, a normative dimension that may well be beyond the scope of development interventions.

## References

- Alderman, H. & C. Paxson 1992, *Do the Poor Insure?* Washington, DC: World Bank, Working Paper Series No. 1008,
- Bogale, T., D. Haile Mariam & A. Ali 2005, 'Costs of Illness and Coping Strategies in a Coffee-Growing Rural District of Ethiopia', *Journal of Health, Population and Nutrition* 23 (2): 192-99.
- de Jong, W., C. Roth, F. Badini-Kind & S. Bhagyanath 2005, *Ageing in Insecurity. Case Studies on Social Security and Gender in India and Burkina Faso*, Berlin: Lit Verlag.
- Dekker, M. 2004a, 'Sustainability and Resourcefulness. Support Networks in Times of Stress', *World Development* 32 (10): 1735-52.
- Dekker, M. 2004b, 'Risk, Resettlement and Relations: Social Security in Rural Zimbabwe', Vrije Universiteit, Amsterdam, PhD Thesis, Amsterdam: Thela Thesis.
- Dekker, M. 2006, 'Estimating Wealth Effects Without Expenditure Data: An Asset-Based Wealth Index for Rural Ethiopia', *Proceedings of the Third International*

- Conference on the Ethiopian Economy*, Addis Ababa: Ethiopian Economic Association.
- Dercon, S., J. Hoddinott & T. Woldehanna 2005, 'Shocks and Consumption in 15 Ethiopian Villages, 1999-2004', *Journal of African Economies* 14 (4): 559-85.
- Dercon, S. & P. Krishnan 2000, 'In Sickness and in Health: Risk Sharing within Households in Rural Ethiopia', *Journal of Political Economy* 108 (4): 688-727.
- de Weerd, J. 2004, 'Risk-Sharing and Endogenous Network Formation', in: S. Dercon (ed.), *Insurance against Poverty*, Oxford: Oxford University Press, pp. 197-216.
- Fafchamps, M. & F. Gubert 2007, 'The Formation of Risk-Sharing Networks', *Journal of Development Economics* 83 (2): 326-350.
- Fafchamps, M. & S. Lund 2003, 'Risk-Sharing Networks in Rural Philippines', *Journal of Development Economics* 71 (2): 261-87.
- Gezahegn, J., B. Ayele, G. Fulle & M. Tadesse 2006, 'Ethiopian Village Studies II, Turufe Kechema', Department of Social Anthropology, University of Addis Ababa, Mimeo: [http://www.Wed-Ethiopia.Org/Docs/Cpii\\_Turufe.Pdf](http://www.Wed-Ethiopia.Org/Docs/Cpii_Turufe.Pdf)
- Goldstein, M. 2004, 'Intrahousehold Efficiency and Individual Insurance in Ghana', London School of Economics, Working Paper.
- Jutting, J. 1999, *Strengthening Social Security Systems in Rural Areas of Developing Countries*, Bonn: University of Bonn, Centre for Development Research.
- Kandiyoti, D. 1988, 'Bargaining with Patriarchy', *Gender and Society* 2 (3): 274-90.
- Lindelow, M. & A. Wagstaff 2005, 'Health Shocks in China: Are the Poor and Uninsured Less Protected?', Washington, DC, World Bank, Policy Research Paper No. 3740.
- Mukhopadhyay, M. 2001, 'Muslim Women and Development Action Research Project', Synthesis Report, Amsterdam: Royal Tropical Institute.
- Murgai, R., P. Winters, E. Sadoulet & A. de Janvry 2002, 'Localized and Incomplete Mutual Insurance', *Journal of Development Economics* 67 (2): 245-74.
- Pankhurst, A. & P. Bevan (n.d.), 'Hunger, Poverty and "Famine" in Ethiopia: Some Evidence from Twenty Rural Sites in Amhara, Tigray, Oromiya and Snnp Regions', Bath: University Of Bath, WeD-Ethiopia Working Paper 1. Mimeo: <http://www.Wed-Ethiopia.Org/Docs/Working-Paper1.Pdf>
- Platteau, J.P. 1997, 'Mutual Insurance as an Elusive Concept in Traditional Rural Communities', *Journal of Development Studies* 33 (6): 764-96.
- Sahn, D.E. & D. Stifel 2000, 'Poverty Comparisons over Time and across Countries in Africa', *World Development* 28 (12): 2123-55.
- Udry, C. & E. Duflo 2004, *Intrahousehold Resource Allocation In Cote D'ivoire: Social Norms, Separate Accounts and Consumption Choices*, New Haven, Conn.: Yale University, Department of Economics.
- von Benda-Beckmann, F. & K. von Benda-Beckmann 1994, 'Coping with Insecurity', *Focaal* 22/23: 7-34.
- von Massow, F. 2000, "'We are Forgotten on Earth": International Development Targets, Poverty and Gender in Ethiopia', *Gender and Development* 8 (1): 45-54.

## Urban agriculture and the urban poor in East Africa: Does policy matter?

Dick Foeken

*This chapter addresses urban agriculture from a legal and policy perspective, focusing in particular on the poor. Based on studies carried out in Nakuru (Kenya) and Morogoro and Mbeya (Tanzania), it is shown that those who would benefit most from urban farming, namely the poor, are actually under-represented among urban farmers, and those who do farm perform worse than their richer counterparts. The legal and policy setting in these towns is not only confusing but also such that the poor do not generally benefit from policy measures, if indeed policies exist at all.*

### Introduction

Millennium Development Goal 1 calls for a 50% reduction between 1990 and 2015 in the proportion of people who suffer from hunger and whose income is less than US\$1 a day. During the 1990s, the percentage of people in Sub-Saharan Africa living below the 'poverty line' of \$1 a day rose, as did the number of those who were undernourished.<sup>1</sup> Instead of a reduction, poverty is on the increase in this part of the world. In addition, by the year 2015, about half of the continent's population will be living in urban centres and poverty will have increasingly moved from rural to urban areas. According to Satterthwaite (1997: 5), urban poverty in Sub-Saharan Africa was 'steadily and frighteningly on the increase during the 1980s and 1990s'. Even though the rural poor today still outnumber the urban poor in absolute terms, the latter have been

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<sup>1</sup> See <http://ddp-ext.worldbank.org/ext/MDG/gdmis.do>.

increasing in number at an alarming rate, a phenomenon commonly described as the 'urbanization of poverty' (e.g. Lee-Smith & Memon 1994). Urban areas have been particularly hard hit by declining economies and the resulting structural adjustment policies, the costs of which have been disproportionately felt by the urban poor (Rakodi 2002). Life in urban areas has become more expensive, while employment in the formal sector has dropped and real wages have not kept up with price increases or have even declined in absolute terms (Jamal & Weeks 1988, UNCHS 1996, Simon 1997). In other words, many urban households have been faced with a serious decline in their purchasing power. People have responded to this in a number of ways, with diversification of income sources undoubtedly being the most notable (Bigsten & Kayizzi-Mugerwa 1992, Ellis 2000, de Haan & Zoomers 2003, Kaag *et al.* 2004). A wide range of activities are being employed, all of which are in the informal sector (e.g. Lee Smith & Memon 1994, Rogerson 1997, Hansen & Vaa 2004, Owuor & Foeken 2006).

Urban agriculture is an important aspect of this informalization process and has expanded considerably over the past decades. It can be interpreted as an adaptive response by urban households to improving their food situation and to diversifying their livelihood options under conditions of persistent economic uncertainty and threats such as unemployment and declining purchasing power (e.g. Mougeot 1994, Mougeot 2005, Foeken & Mwangi 2000, Foeken & Owuor 2000). Studies have revealed that urban agriculture contributes to household food and nutritional security, informal employment creation, income diversification through sales of surplus produce or savings on food expenditures, and promotes general urban food supply systems and, in theory, environmental sustainability too (Armar-Klimesu 2000, Mougeot 2000, Nugent 2000, Foeken *et al.* 2004, Brock & Foeken 2006). It is widely recognized that the urban poor could benefit from farming in town because of the relatively low start-up costs involved. There are indications that, in terms of income, food security and nutrition, the poor who practise urban farming are better off than those who do not (Mwangi 1995, Mwangi & Foeken 1996, Foeken 2006).

Despite its importance as a livelihood source, farming in town is illegal in many African countries. By-laws frequently date from colonial times and forbid all agricultural activity within the boundaries of urban centres, as it does not fit in the western perception of what constitutes 'urban' (e.g. the city-is-beautiful idea) and because it supposedly causes all kinds of environmental hazards. However, as the practice has become increasingly widespread, changes in policy have occurred (Bakker *et al.* 2000). During the 1960s and 1970s, policies were restrictive in the sense that harassment and the destroying of crops were measures commonly taken by the local authorities. In the 1980s, a gradual shift in attitude took place and, nowadays urban farming is usually tolerated as long

as it is not a nuisance. In some urban centres, Dar es Salaam being an example, the authorities are encouraging the practice to raise food-supply levels (Jacobi *et al.* 2000).

The aim of this chapter is to analyze the extent to which urban policy and the practice of urban agriculture by the poor are related. More specific questions include: (1) To what extent are the urban poor practising urban agriculture? (2) If they do, how do they perform compared to the non-poor who engage in this practice? (3) What influence does the legal and policy context have on the possibilities for the poor to perform urban agriculture? (4) To what extent can the urban poor benefit from policy measures?

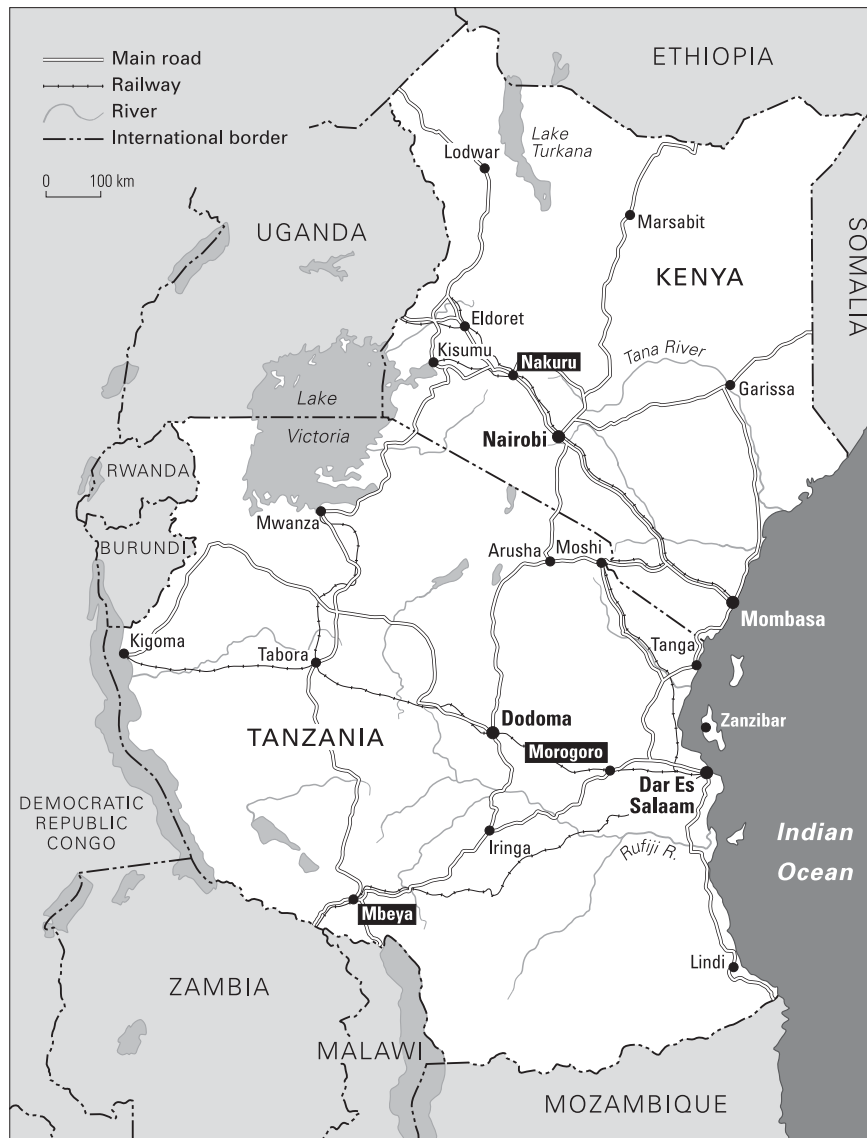
The results presented in this chapter are based on two studies, one in Nakuru Municipality in Kenya and the other in Morogoro and Mbeya Municipalities in Tanzania (Map 9.1). Fieldwork for the Nakuru study was carried out in 1999 and 2000 and for the Morogoro-Mbeya study in 2000 and 2001.<sup>2</sup> The three towns resemble each other in size, as they all had a population of around 250,000 in 2000. In terms of climate and physical characteristics, they also show many similarities. Nakuru lies at an altitude of about 1700 m and is fairly flat except for the Menengai Crater on its northern boundary. Being situated on the floor of the Great Rift Valley, it has fertile, volcanic soils. And with an average annual rainfall of about 940 mm, Nakuru has a dry sub-humid climate, although rainfall shows strong fluctuations between and within years, making rain-fed agriculture a risky business. Morogoro has, except for its altitude (about 500 m above sea level), more or less the same characteristics. Mbeya is at the same altitude as Nakuru but is hillier and receives more rainfall, on average about 1200 mm a year.

For practical reasons, urban agriculture was defined in both studies as any agricultural activity undertaken within the municipal boundary. The studies dealt only with urban farmers<sup>3</sup> living in the built-up area; so farmers living in

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<sup>2</sup> The funding of the Tanzania study by the Netherlands-Israel Development Research Programme (NIRP) is gratefully acknowledged. This study focused on the sustainability of urban farming; see Foeken, Sofer & Mlozi (2004) for the results of the study. The Kenyan study focused on socio-economic aspects, farming practices and environmental issues and has yielded various publications to date. See, for example, Foeken (2006). Most of the Nakuru figures presented here come from the latter publication (Chapter 10), but the Tanzanian figures are largely based on new analyses. It should be noted that because it concerns two separate studies with different foci, data are not always available for both Kenya (Nakuru) and Tanzania (Morogoro, Mbeya).

<sup>3</sup> People cultivating crops on a plot of at least one square metre and/or keeping one or more types of livestock. One square metre as a bottom-line may seem small but studies have shown that there are examples of surprising production levels from such



Map 9.1 Research locations in Kenya and Tanzania

a plot (see, for example, Smit *et al.* 1996). An overwhelming majority of the urban crop cultivators in the two studies however had plots that were much larger. The benchmark for livestock used in this study was one head of cattle or five goats/sheep or ten small animals.

the peri-urban areas – defined as the zone between the built-up area and the municipal boundary – were not included. However, some of the farmers living in the built-up area had farming plots in the peri-urban zone too.

In Nakuru, poor households were defined as households with a gross monthly cash income of less than Ksh 5,000, which is the equivalent of about US\$ 0.67 per person per day (see Foeken 2006: 138). The non-poor are those with a monthly cash income of at least Ksh 10,000. In Morogoro and Mbeya, households with a gross monthly cash income of less than Tsh 50,000 were defined as ‘poor’ (about US\$ 0.50 per person per day) and those with an income of Tsh 90,000 a month as ‘non-poor’ (see Foeken *et al.* 2004: 42).<sup>4</sup> The different benchmarks in the two studies are due to the use of income classes when the respondents were asked about their household’s income situation instead of absolute incomes but for the purpose of this chapter this is not a problem. The distribution of poor and non-poor households in the three towns is presented in Table 9.1.

Table 9.1 Distribution of poor and non-poor households by town (N)

	Nakuru	Morogoro	Mbeya
Total number of households in survey	594	300	308
- no. of poor households	310	122	157
- no. of non-poor households	106	71	42

Source: Surveys 1999 (Nakuru) and 2000 (Morogoro, Mbeya)

## The poor versus the non-poor

### *Urban households engaged in farming activities*

In Nakuru, poor households appeared to be underrepresented among urban farmers in both crop cultivation and livestock keeping (Figure 9.1). In the two Tanzanian towns, where urban farming was much more common than in Nakuru, the situation was slightly different: poor households in Morogoro were only underrepresented among urban livestock keepers, and in Mbeya only among urban crop cultivators. In another Tanzanian town, Mwanza, Flynn (2001) found a comparable situation to that in Nakuru. In her small sample, only 20% of the low-income households were engaged in urban farming, compared to half of the middle-income and all of the high-income households.

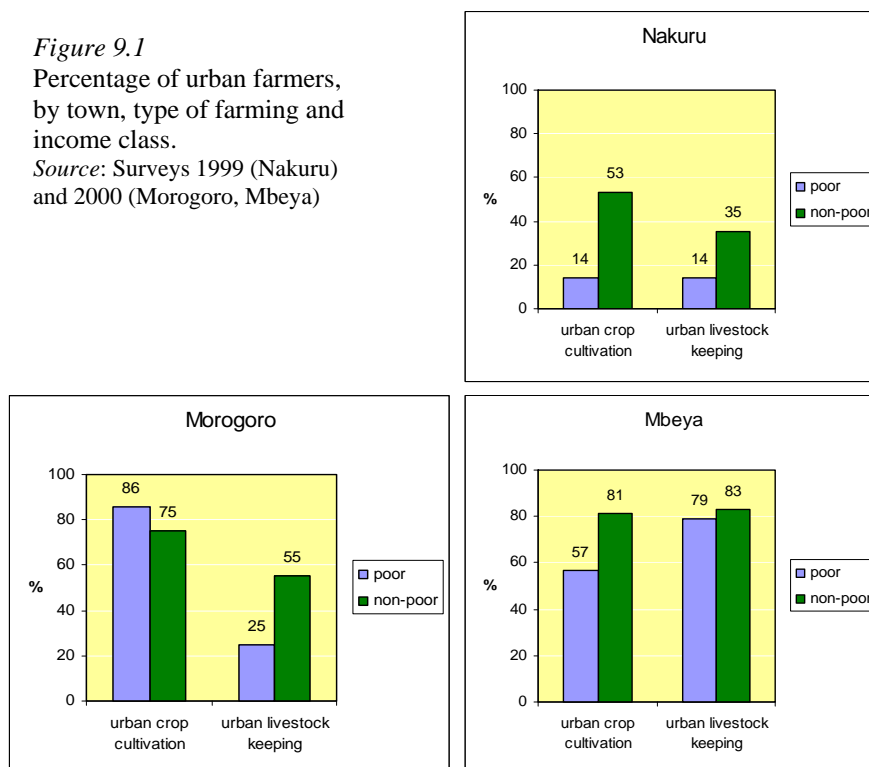
The underrepresentation of the poor among Nakuru’s urban farmers indicates that they faced more serious obstacles to starting farming than the

<sup>4</sup> At the time of the studies, US\$1 was about Ksh 70 or Tsh 700.



non-poor. Lack of access to land as such cannot explain the difference between the two income groups because this obstacle was mentioned by both the non-farming poor and non-poor. Instead, it was to some extent the *combination* of lack of access to land and lack of capital that seemed to explain the poor's underrepresentation among urban farmers in Nakuru town.<sup>5</sup>

*Figure 9.1*  
Percentage of urban farmers,  
by town, type of farming and  
income class.  
*Source:* Surveys 1999 (Nakuru)  
and 2000 (Morogoro, Mbeya)



### *Urban crop cultivation*

To get a good assessment of the performance of urban crop cultivation by the poor and the non-poor, output figures are needed. However, these are available only for Nakuru and the figures can at best be considered estimates. What we do have for all three towns, however, are a number of variables that can be

<sup>5</sup> In both income groups, more than 80% of *non*-farmers mentioned 'no access to urban land' as a reason for not farming, while 'no capital' was mentioned by 33% of the poor and 10% of the non-poor (Foeken 2006: 199).

considered as performance indicators: plot size, plot location,<sup>6</sup> the use of chemical inputs, the practice of irrigation and the hiring of paid labour.

The two plot characteristics are presented in Table 9.2. In Nakuru, the plot size distribution hardly differed between the two groups, so the average plot size was also practically the same. This is related to the fact that over half of the poor crop-cultivating households had a plot *outside* their own compound, where there is more space than inside the compound (if they had a compound at all). Many of them grew their crops along a road or railway or under a power line. Among the non-poor, the majority had their *shamba*<sup>7</sup> within the compound. In Morogoro and Mbeya, the situation regarding the urban plots was different from that in Nakuru (apart from the fact that plots in these Tanzanian towns were much bigger than in Nakuru). The poor's urban plots were on average somewhat smaller than those of the non-poor and another disadvantage for the poor was that most had a plot outside their own compound and thus faced an increased risk of crop theft.

Table 9.2 Characteristics of urban plots by town and income class

	NAKURU		MOROGORO		MBEYA	
	poor (N=46)	non- poor (N=61)	poor (N=120)	non- poor (N=77)	poor (N=110)	non- poor (N=51)
Average plot size* (acres)	0.24	0.24	2.2	3.3	1.4	1.7
Location: in own compound (%)	46	69	27	43	28	71

\* The Nakuru figures are estimates based on class averages.  
Source: Surveys 1999 (Nakuru) and 2000 (Morogoro, Mbeya)

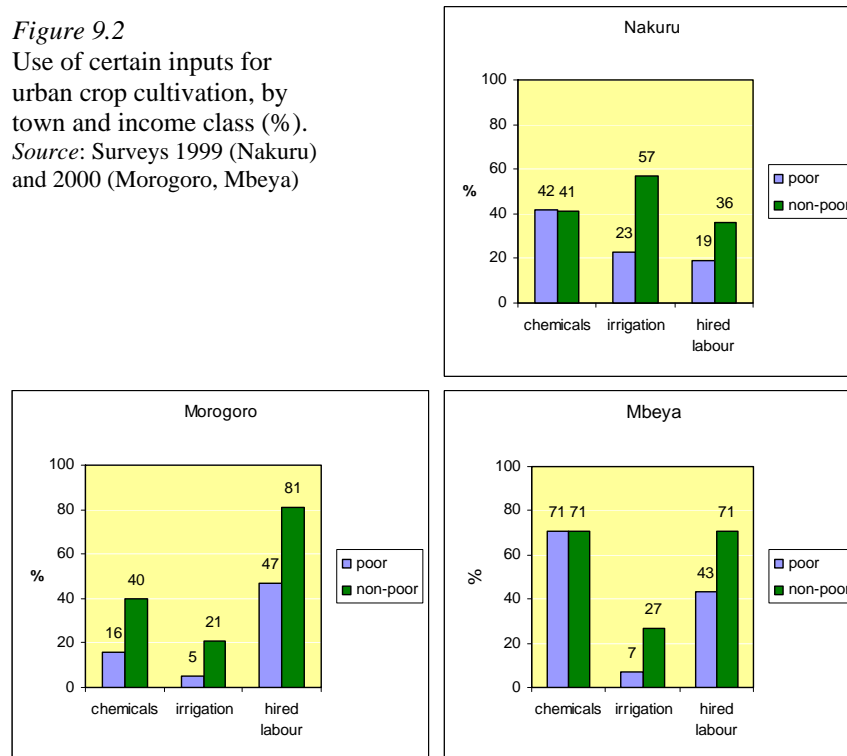
In all three towns, maize was the most frequently cultivated crop, followed by beans in Nakuru and Mbeya, kale (*sukuma wiki*) in Nakuru and rice in Morogoro. In Nakuru, maize and beans were more commonly grown among the poor than among the non-poor, the latter specializing more in, for instance, vegetables. The same applies to Morogoro (where, besides maize, rice is a staple crop) and Mbeya (beans). In general, this suggests that the poor were more inclined to grow basic staple foods than the non-poor.

Data regarding the three input indicators are presented in Figure 9.2. The use of chemicals for crop cultivation was fairly widespread among both the

<sup>6</sup> Within or outside the household's own compound. Crops grown on plots outside the compound are more liable to theft, so people are less inclined to invest in such plots.

<sup>7</sup> *Shamba* is the Swahili word for plot or field.

*Figure 9.2*  
Use of certain inputs for urban crop cultivation, by town and income class (%).  
*Source:* Surveys 1999 (Nakuru) and 2000 (Morogoro, Mbeya)



poor and the non-poor in Nakuru and Mbeya. Only in Morogoro was the use of chemicals much less common among the poor than among the non-poor. As for irrigation, the Nakuru study showed a significant relationship between the use of this input and crop yields (Foeken 2006: 60). However, irrigation of crops was not widespread in the three towns, particularly among the poor. Tap water is the most common source of irrigation water and most poor households lack such provision. The third factor potentially contributing to higher yields concerns hired labour. In Nakuru, the average harvest from the plots where hired labour had been used was twice as high as that from plots where no additional labour had been hired (Foeken 2006: 60-61). As Figure 9.2 shows, hiring additional labour in all three towns was much more common among the non-poor than among the poor for the simple reason that many of the latter simply could not afford it.

Many poor farmers tried to economize on the use of inputs, as can be seen in the example of Baba David in Nakuru:



Photo 9.1 Woman cultivating *sukuma wiki* in front of her one-room house in Nakuru [Photo: Samuel O. Owuor]



Photo 9.2 Dairy cattle in zero-grazing (left) and vegetable cultivation in a compound in a high-density, low-income area of Mbeya. The same household kept about 70 chickens in a room in the house. [Photo: Dick Foeken]

In the case of *sukuma wiki* he does not need to buy seeds or anything because he just removes the smaller plants from in-between the larger plants and plants them on open space. Also suckers can be used. As for maize, he buys seeds in case there are not enough useful seeds from last year's harvest. For beans, it is the same, although those are usually all from last year's harvest.

He does not always use fertilizers; he only buys fertilizers when he has some extra money. Crop leftovers are left on the plot to serve as fertilizers. He does not use any water (...) because there is no water source around. (Versleijen 2002: 44-45)

#### *Urban livestock keeping*

In this section, five indicators are presented (Figure 9.3) to show that even though the poor keep livestock in town, they do not perform as well as their better-off counterparts. The first indicator concerns the percentage of the livestock-keeping households that keep cattle. Cattle – and improved cattle in particular – are the most (financially) rewarding but at the same time the most expensive type of animal. Many poor households lacked the means (and/or space) to invest in cattle and as a result, particularly in Nakuru, kept chickens. But keeping free-range chickens can be risky, as one respondent explained:

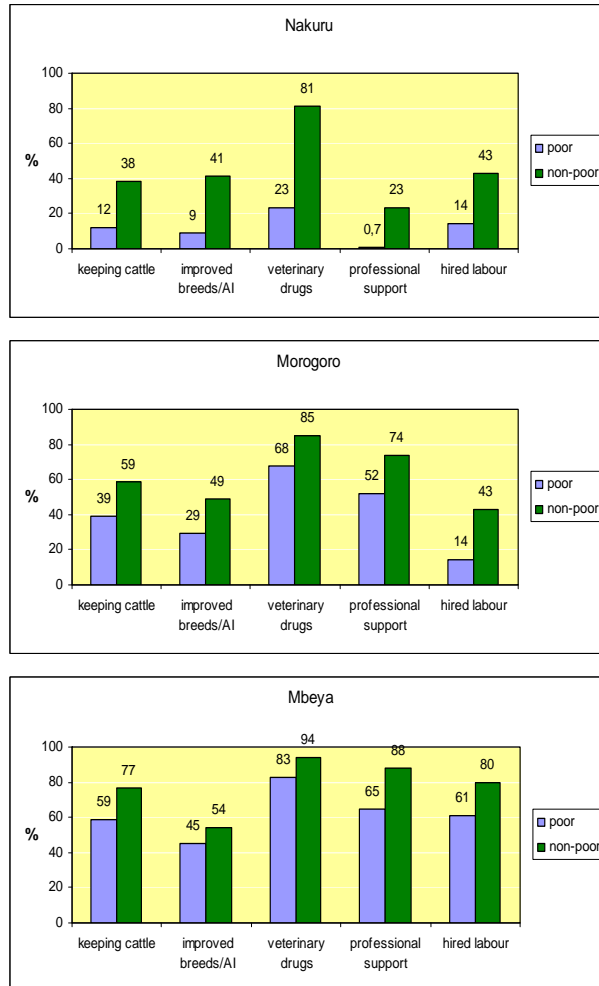
You know, if you want to keep chickens, that is very risky. First of all, chickens are very likely to die because of the polluted drainage canals from which they will drink. Those canals are polluted by dirt. Second, the risk of theft is very high, since you cannot keep an eye on your chickens each and every moment. (Versleijen 2002: 54)

The use of inputs for livestock keeping shows the same picture: in all three towns, almost all inputs were used less frequently by the poor than by the non-poor. Particularly in Nakuru, the poor apparently could not afford to buy such modern inputs as improved breeds and drugs (Figure 9.3). The same applies to feed supplements. For example, during the dry season when grass is scarce in town, cattle keepers have to buy it from so-called 'grass boys'. One respondent described it as follows:

During the dry season, the cows are just inside here and I buy grass from the people who sell it. You know, you can often see them passing on their bikes with those piles of grass on the backs of the bikes. They know who has cattle so they go to these people to sell the grass. (Versleijen 2002: 70)

The two other performance indicators of urban livestock keeping concern professional support and the hiring of additional labour. The Nakuru study showed that those livestock keepers who received professional support (from extension officers, programme officers, etc.) used more sophisticated ways of managing their animals (zero-grazing, modern inputs, recycling their animals' waste) than those who did not receive any assistance or only limited assistance

*Figure 9.3*  
 Characteristics of urban livestock keeping, by town and income class (%).  
 Source: Surveys 1999 (Nakuru) and 2000 (Morogoro, Mbeya).



from neighbours, relatives or friends (Foeken 2006: 97). Figure 9.3 shows that, in general, the poor received less professional support than the non-poor and that this was particularly the case in Nakuru. Hiring additional labour shows a comparable picture.

An important environmental matter related to livestock keeping in town is the disposal of animal waste. There appeared to be quite a difference in this respect between Morogoro and Mbeya, on the one hand, and Nakuru on the other. In the two Tanzanian towns, among the poor as well as the non-poor, most waste was recycled into crop cultivation either by the livestock keepers

themselves or by their neighbours. Any surpluses were (temporarily) dumped in the livestock keepers' compounds. Dumping in the street did not occur, except for two cases in Mbeya. The situation in Nakuru was quite different. Here, the non-poor also used most of the waste for their own or their neighbour's crop cultivation but only a minority did so among the poor. Half of the latter dumped some or all of their animals' waste in the street (and even some of the non-poor did so). It should be added that this mainly concerned waste from small livestock, but it was still an offence.

### Urban farming as a source of livelihood

The overwhelming majority of both the poor and the non-poor urban farmers in all three towns said they farmed in town for the food. For them, urban crop cultivation was an additional food source for the household. The percentage of households for whom urban cropping constituted a *major* food source was higher among the poor than among the non-poor. The importance of urban livestock keeping as a food source was equal in both income groups but as a direct food source it was less important than urban crop cultivation. In general, a household's own urban agricultural production was among the most important food source for many households in both income groups, albeit more so in Morogoro and Mbeya than in Nakuru. In combination with the other two most important food sources (purchased food and the household's own rural production),<sup>8</sup> most households 'always [had] enough to eat during last year'. However, there was one notable exception, namely Morogoro, where the majority of the poor households had faced food problems.

The importance of urban farming for a household's food supply was shown in another way in Nakuru. The general food security issues discussed in the previous paragraph reflected the situation in 1998. This was a fairly normal year in terms of rainfall, and the resulting harvests were also more or less normal. The following year, however, was a dry year in Kenya.<sup>9</sup> This had a serious impact on households' own urban production resulting in a deterioration in the food security situation of poor households in particular (Figure 9.4<sup>10</sup>). Whereas in 1998, 12% of poor households in Nakuru had *not* 'always enough to eat', this

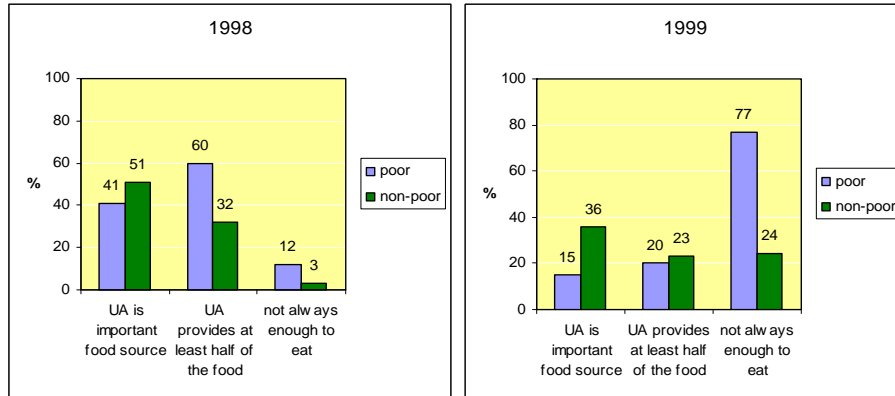
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<sup>8</sup> On the importance of rural farming as a livelihood source for the Nakuru population, see Owuor (2006).

<sup>9</sup> See Foeken (2006: 23) for monthly rainfall distributions in 1998 and 1999.

<sup>10</sup> Even though the figures in Figure 9.4 can only be seen as rough approximations (in qualitative terms) of households' food security and the 1999 numbers of poor urban farmers are relatively small (13), the 1999 figures indicate notable differences with those of 1998.

Figure 9.4  
Urban farmers in Nakuru: General food security issues by income class, selected years (%)



Source: Foeken (2006, Annex 10, Table A10.10)

percentage jumped to 77% in 1999. The figures show that this was to a large extent caused by the failure of the urban (as well as the rural) harvest, as the percentage of poor households for whom this was an important food source declined concomitantly. As a result, the percentage of poor households for whom urban farming constituted at least half of their food supply dropped from 60% in 1998 to 20% in 1999 and the dependence on purchased food increased accordingly. However, even though 100% of poor households relied on purchased food, Figure 9.4 also indicates that they could not afford to purchase all the food they needed, witness the fact that only a quarter of them always had enough to eat in 1999. As for the non-poor, although they were affected by the drought as well, the impact on their households' food supply was far less dramatic.

In the following year (2000), the drought in Nakuru was even worse. Those who practised crop cultivation without irrigation had no – or hardly any – harvest. As one respondent remarked:

Mostly when there are droughts, the crops are affected and the harvest is small, like at the end of last year [1999] and the beginning of this year [2000]. All the kales dried up this year and now we have to buy the food from the market. This has made it difficult for us.

The drought had an impact on livestock keeping as well. Some respondents blamed the lack of water – and hence the lack of feed – for the loss of some of their animals:



The drought had very bad effects. Last year's [1999] drought cost me two heifers because of the lack of soft green grass. Moreover, the livestock became so emaciated that they took a longer period to recover and by the time they were recovering, this year's [2000] drought started.

Urban farming is a source of both direct and indirect income. Regarding the latter, by growing one's own food, money is saved to spend on other necessities. How important this indirect income – and hence the urban plot – can be for a poor household is illustrated by the case of Baba and Mama Christopher in Nakuru:

You know, if you manage to grow your own food for several months per year, then you can educate your children from your salary. (Versleijen 2002: 36-37)

As a *direct* source of income, livestock keeping was more important than crop cultivation, albeit with differences between the three towns. In general, the commercial aspect of urban agriculture was more important in the two Tanzanian towns than in Nakuru. What is important for the present analysis is that the poor and the non-poor show hardly any differences in this respect.

No attempt was made in the two studies to assess the amount of money earned by those who sold crops and/or livestock products. An important aspect in this context concerns the price fluctuations of food stuffs. Many of the poor have plots at some distance from their houses and are forced to harvest their maize when it is still green to prevent theft, and this fetches a lower price than dried maize. Moreover, because the poor generally have no storage facilities, they have to sell when there is an abundant supply and they consequently receive a relatively low price for their crop. The crops of those with storage facilities (usually the non-poor) will get a better price when demand is higher. As a respondent in Morogoro explained:

When crops are scarce, prices for crops go up and when the farmers sell their crops they get a lot of money.

Some urban farmers are very successful in turning their agricultural activities into a profitable business. An example is the case of Baba Josephine in Nakuru who had two good dairy cows from which he made an annual profit of some Ksh 80,000 gross.<sup>11</sup> Compared to a total initial investment of Ksh 75,000 (two cows, a shed and milking equipment), Baba Josephine had good reason to be content with his business:

Cows are expensive animals to keep, because of the veterinary drugs and check-ups they require. However, they also bring in a lot of money! (Versleijen 2002: 74)

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<sup>11</sup> See Foeken (2006: 91, 193). Ksh 1,000 was the equivalent of about US\$ 14 at the time.

Other success stories were a commercial dairy cattle and pig farm on the outskirts of a high-density neighbourhood in Morogoro and a small mushroom farm in Mbeya.<sup>12</sup> One of the things these examples have in common is that the owners had the financial means to invest in their businesses, something that most poor households lack.

### The legal and policy context

Despite its importance, urban agriculture is still an illegal activity in many African towns and cities. In this section, the legal and policy context, both local and national, of urban farming in the three towns is discussed in an attempt to link it to policy measures and the position of the poor.<sup>13</sup>

#### *National legislation and policies*

Rules and regulations regarding urban agriculture are laid down in local by-laws and are based on the manoeuvring space allowed by national legislation. There is a variety of national legislation in Kenya related to urban agriculture.<sup>14</sup> The most relevant is undoubtedly the Local Government Act<sup>15</sup> because it provides local authorities with decision-making powers regarding crop cultivation and livestock keeping within their municipal boundaries. For instance, Section 144 states that:

[a]ny land belonging to a local authority (...) may (...) be appropriated for any other purpose for which the local authority is authorized to acquire land.

In other words, by means of urban-agriculture-friendly by-laws, a local authority may invoke this Act to temporarily provide its urban dwellers with land for urban agriculture. However, growing crops on land not owned by the cultivator – which is quite common in Nakuru – is illegal. According to Section 154, every municipal or town council has the power

(...) to prohibit the cultivation by unauthorized persons of any unenclosed and unoccupied land in private ownership and of any government land and land reserve for any public road.

In short, according to the Kenyan national legislation, urban agriculture can be forbidden, restricted, allowed, controlled, facilitated or even promoted.

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<sup>12</sup> See Foeken *et al.* (2004: 78, 134).

<sup>13</sup> Both sections are based on Foeken (2005).

<sup>14</sup> Such as the Agricultural Act, the Land Control Act, the Physical Planning Act, the Public Health Act, the Water Act, the Local Government Act and the Chiefs Act. For a more detailed discussion of these Acts, see Foeken (2005: 10-12).

<sup>15</sup> Laws of Kenya: The Local Government Act – Chapter 265, Revised Edition 1998. Nairobi: Government Printer.

Which line is actually followed at the local level depends entirely on the by-laws and ordinances issued by the local authorities. The latter's power to draw up such a local legal framework is provided by the Local Government Act, while the various other acts form the legal handle for the provisions made in these by-laws.

The situation in Tanzania is quite different and much more straightforward in the sense that, at the national level, urban agriculture has been recognized since the beginning of the 1970s. Whereas in Kenya there is no national legislation directly dealing with urban agriculture and the national government has never devised any policy on the subject, the Tanzanian government did both. As a result, urban agriculture in Tanzania is practised in a generally favourable political and legal context. Government and political leaders have time and again told urban dwellers to raise livestock and grow food crops in their backyards and on other open spaces (Mlozi 2001).<sup>16</sup>

The Agricultural and Livestock Policy of 1997 observes, on the one hand, that 'agriculture is not a principle function of towns' but also that 'when properly organized [it] has the potential to provide employment and income and is a complementary source of food supply' (Kitilla 2001: 79). The positive attitude of the national government towards urban agriculture was once again expressed in the National Human Settlement Development Policy of 2000 put forward by the Ministry of Lands and Human Settlement Development (URT 2000):

Urban agriculture exists in most urban areas both in the developed and developing countries. As an economic activity, it provides income and employment opportunities to the urban populations, and a reliable supplementary source of food supply to urban dwellers at affordable prices. As a land use, well-planned urban agriculture creates a pleasant greenly scene.

This implies that outright recognition of urban agriculture as an important economic sector in terms of food supply and employment and, therefore, as an important livelihood source for many. At the same time, however, since the beginning of the 1990s, attempts have been made to control the sector. For instance, in the 1992 Urban Farming Regulations, guidelines were laid down on maximum plot size, number of cattle, and rearing systems for livestock (Kitilla 2001) and it prohibits any farming activity that might cause a nuisance.

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<sup>16</sup> Policies behind this included *Siasa in Kilimo* (Politics is Agriculture) in 1972, *Kilimo cha Umwagiliaji* (Irrigated Agriculture) in 1974, *Kilimo cha Kufa na Kupona* (Agriculture for Life and Death) in 1974/75 and, in the same year, *Mvua za Kwanza ni Zakupandia* (First Rains are for Planting). Others were the 1981/82 National Economic Survival Programme (NESP), the 1982 National Food Strategy, the 1983 National Livestock Policy (NLP) and the National Agricultural Policy (NAP), and the 1986-90 National Economic Recovery Programme (ERP).

At the ministerial level in the 1970s in a bid to encourage urban dwellers to produce their own food, the Ministry of Agriculture and Food Security (MAFS) set up an urban agriculture extension service. Currently, MAFS is using its urban-based Agriculture and Livestock Extension Agents (ALEAs) to promote livestock raising and crop growing. ALEAs visit urban dwellers and impart modern skills and knowledge (non-formal education) about agriculture so that farmers' production levels increase.

#### *Local by-laws and policies*

By the end of the 1990s, urban agriculture in Nakuru's policy circles was still what it had been for decades: officially illegal but tolerated in practice. The main legal control mechanisms were the Public Health By-Laws of the Municipal Council of Nakuru, for instance those in 1994<sup>17</sup> that stated that farming was prohibited if it caused a nuisance. Thus, any farming activity that was considered detrimental to public health and/or safety or that other people complained about was dealt with by the municipal authorities, usually the Public Health Officer.<sup>18</sup>

The slightly ill-defined status of the sector is illustrated by the fact that urban agriculture was conspicuously absent from the Localising Agenda 21 (LA21) programme. The LA21's objective was to provide training for the development of a new approach towards urban planning and management, focusing on an environmentally-conscious development of Nakuru into a 'People's Green City, with particular attention to low-income groups. The major results of the programme were the creation of a town planning unit and the preparation of the so-called Strategic Nakuru Structure Plan (MCN 1999). Although the Strategic Plan has been described as 'the blueprint for urban sustainable development for the town' (Mwangi 2001: 17), the only time urban agriculture is mentioned (on p. 44), it is seen as being a temporary feature. 'Economically, urban agriculture is a transitory activity which eventually gives way to more traditional urban functions.'

Due to the influence of developments elsewhere over the past few years and to research<sup>19</sup> carried out in Nakuru itself, there has been a growing awareness among the local authorities that farming in town is very important for the livelihood of many Nakuru townspeople. It is now felt that it is better to try to regulate the sector than to maintain a *laissez-faire* attitude (which is so common in many African towns and cities) towards something that is officially illegal.

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<sup>17</sup> The Municipal Council of Nakuru (Public Health) By-Laws (1994).

<sup>18</sup> Mr S.C. Kiarie, Public Health Officer, Municipal Council of Nakuru, personal communication, September 1998.

<sup>19</sup> The Nakuru Urban Agriculture Research Project (NUAP) by the African Studies Centre.

This change in attitude and policy regarding urban agriculture is clearly shown by recent by-laws that were developed between 2004 and 2007, notably the Control of Stock By-laws of 2004, the Environmental Management By-laws of 2006 and the Urban Agriculture By-laws (still in the making).

The 2004 Control of Stock By-laws<sup>20</sup> deal with livestock keeping in Nakuru Municipality. These by-laws do permit the keeping livestock but the conditions in which they must be kept are quite strict. For instance, By-law 4 states that 'No person shall keep or graze any stock or horse within the boundaries of the Municipal Council of Nakuru unless he is in possession of a permit'. This permit, however, is only issued for stock waiting to be slaughtered at the Council's slaughterhouse, stock to be presented at the Nakuru Agricultural Show, or stock that has been 'lawfully impounded' (By-law 5). In other words, it is not possible to obtain a permit for livestock kept in the way many Nakurians currently do so. And By-law 6 prohibits the construction of any stable or shed or building for the keeping of livestock, while By-law 7 provides that 'no stock shall be kept (...) in or under any portion of any building (...) used for the purposes of human habitation', so keeping chickens in a room in the house, as some people do, is illegal.

The development of the recently implemented Environmental Management By-Laws 2006<sup>21</sup> is perhaps the best example of the changes in policy over the past few years. In the draft version of 2004, any form of urban agriculture was simply forbidden. For instance regarding the growing of food crops, it stated that '[a]ny person found growing food crops within the Council's jurisdiction shall be guilty of an offence'. The same applied to livestock keeping: 'Any person who rears or keeps any animal within the jurisdiction of the Council shall be guilty of an offence. Such animals shall include but are not limited to cows, pigs, goats, sheep, chicken, turkey, duck and donkeys.' However in the final version approved by the Minister of Local Government in 2006, none of the by-laws forbid any form of urban agriculture. All that is required under By-law 172(i) is a municipal permit as a regulatory measure.<sup>22</sup>

In 2006, a first draft of the Urban Agriculture By-laws was drawn up.<sup>23</sup> This in itself is a positive step towards legalization and control of the sector, and is quite unique in Kenya. Based on the recognition that 'every person within the jurisdiction of the Council is entitled to a well-balanced diet and food security' and that this entitlement 'includes facilitation by the Council to acceptable and approved urban farming practices', farming is now legally recognized as an

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<sup>20</sup> The Municipal Council of Nakuru (Control of Stock) By-Laws (2004).

<sup>21</sup> The Municipal Council of Nakuru (Environmental Management) By-Laws (2006).

<sup>22</sup> Mr S.C. Kiarie, Director of Environment, Municipality of Nakuru, personal communication, December 2006.

<sup>23</sup> The Municipal Council of Nakuru (Urban Agriculture) By-Laws (2006) (Draft).

urban activity. These by-laws are based on the Kampala example<sup>24</sup> in the sense that farming in town is recognized as an important activity for many urban dwellers and that it is in principle permitted, while at the same time the municipality attempts to regulate the sector, for instance by introducing permits that are required by anyone who wants 'to practise urban agriculture within the jurisdiction of the Council' (Section 9). Another attempt to control the sector is included in Section 33 which states that the 'growing of any crop of more than one metre high' in residential areas is an offence, which would imply that the large majority of the present cultivators (maize growers) in the built-up areas of Nakuru violate the (by-)law. At the time of writing, the completion of the formulation of the Urban Agriculture By-laws was still going on, including a discussion round in all 15 of the municipality's wards, with the aim of making the by-laws enabling and as far as possible feasible for local communities. In other words, it is still too early to determine the extent to which the new Urban Agriculture By-laws will either restrict or promote urban farming in Nakuru, especially where it concerns the poor.

Some developments on the ground also confirm changes in attitude and policy in Nakuru. For instance, officially recognized NGOs have for some time been actively involved in farming activities in the municipality. Two of these are the Agriculture and Rural Development Programme and the Ecumenical Church Loan Fund. Another (Danish-sponsored) NGO called SENVINET (Strategic Environmental Network) has been working in Nakuru since the mid-1990s on an environmental awareness programme focusing on school children and actively promoting organic farming in schools, assisted by Ministry of Agriculture extension officers.

In addition, high-ranking representatives of the Municipal Council were recently quite positive about farming in Nakuru town. A workshop was held in November 2002 where the results of the Nakuru research project<sup>25</sup> were presented to and discussed by various stakeholders, including Municipal Council officers. The then Director of the Department of Housing spoke about how the workshop had been an 'eye-opener', stressing that Nakuru's housing policy needed to be revised, i.e. new municipal houses should have a compound so that the inhabitants could at least produce a part of their own food. In December 2004, a meeting was held in Nakuru in the context of an initiative entitled 'Local Participatory Research and Development on Urban Agriculture and Livestock Keeping in Nakuru'. Its purpose was to develop a common under-

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<sup>24</sup> The Kampala City Urban Agriculture Ordinance: A Guideline. Kampala/Nairobi: KUFSA/LCC/Urban Harvest.

<sup>25</sup> The Nakuru Urban Agriculture Research Project (NUAP) consisted of two surveys, one PhD study and four Masters theses. See Foeken (2006, Annex 1) for a brief overview; see also <http://www.ascleiden.nl/Pdf/infosheet1.pdf>.

standing of the initiative among all stakeholders, including representatives of the Municipal Council. As can be seen in the report of the meeting,<sup>26</sup> all groups – municipal officials included – ‘strongly felt that there was a need for the proposed initiative in Nakuru (...) and expressed their commitment to the project if it came to fruition’. Finally, during another consultative meeting with local stakeholders in May 2005,<sup>27</sup> the representative of the Department of Environment said that they were actively promoting urban farming in Nakuru, at least as long as the activity was carried out in an environmentally friendly way.<sup>28</sup>

The situation in Tanzania (Morogoro and Mbeya) regarding local legislation regarding urban agriculture is completely different from in Kenya (Nakuru). By-laws concerning crop cultivation and livestock keeping are in place in all Tanzanian towns and municipalities. The first urban by-laws regulating crop cultivation and livestock keeping in urban centres were enacted by the British colonial authorities back in 1928 and were particularly directed at preventing agricultural activity by Africans.<sup>29</sup> After independence in 1961, most of these by-laws fell into disuse but during the 1980s new ones were developed, essentially stating that growing crops or raising animals was permitted under certain conditions.<sup>30</sup> Specific by-laws forbid planting crops in designated areas or restrict the cultivation of certain crops. For instance, crops taller than one metre are forbidden, which includes maize – one of the most common crops in Tanzanian towns. By-laws concerning livestock keeping include the required purchase of a special permit from the Town or City Director; a maximum of four head of cattle may be kept and only in zero-grazing and in specific settings; and the compulsory removal of manure, liquid waste material and other animal waste (Kitilla 2001; Mlozi 2001).

The Mbeya by-laws on crop cultivation apply to 15 of the town’s 36 wards.<sup>31</sup> These 15 wards roughly coincide with the built-up area of the town while the other 21 wards make up the peri-urban area where farming is an

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<sup>26</sup> See [http://www.cipotato.org/urbanharvest/news\\_events2005/nakuru.htm](http://www.cipotato.org/urbanharvest/news_events2005/nakuru.htm).

<sup>27</sup> To discuss a research proposal on school farming and feeding programme in Nakuru in the context of NUAP, Phase 2.

<sup>28</sup> Mr W. Wanyonyi, Assistant Director of Environment, Municipal Council of Nakuru, personal communication, 31 May 2005. He also explained that the municipality’s policy change in favour of urban agriculture in Nakuru was a direct result of the NUAP studies and workshop.

<sup>29</sup> By-laws for Regulating the Cultivation of Crops and Keeping of Animals in Urban Areas.

<sup>30</sup> See for instance the Mbeya Municipal Council (Regulations of Cultivation) By-Laws (1987) and the Morogoro Municipal Council (Animals in Urban Area) By-Laws, (1999), as presented in Annex 8 and Annex 9 respectively in Foeken *et al.* (2004).

<sup>31</sup> A ward is the administrative entity directly under the municipality.

important economic activity. As far as the built-up area is concerned, the by-laws make a distinction between areas where growing crops is completely prohibited (By-law 3) and where it is permitted (By-law 4). The area where crop cultivation is prohibited applies to 11 of the 15 wards and most of another one. In practice, these by-laws imply that urban agriculture is an illegal activity in most of the built-up area of Mbeya (and other Tanzanian municipalities as well). But this is rarely enforced.

In the Morogoro by-laws on livestock keeping, 'animals' include cattle, donkeys, goats, horses, mules, pigs and sheep. In other words, small livestock like chickens, ducks, rabbits and turkeys, most of which are now raised in urban areas, are excluded. In By-law 3, the Council stipulates that it

(...) shall earmark certain areas to be known as 'specified areas' within the Urban area for the purpose of keeping animals [and] along which to move an animal or animals and permits shall be issued by the Council in respect of animals authorized in the Urban area.

The by-laws however do not specify the numbers and types of animals that urban dwellers are allowed to raise in different density areas. By-law 5 forbids keeping animals outside 'a building, structure or enclosure', so keeping animals in free range is prohibited. According to By-law 8, animals are not allowed to be kept 'in a building or part of such building that is used for human habitation', but the researchers observed that people still keep improved chickens in their houses. Since chickens are not defined as animals in these by-laws, does this imply that keeping chickens in a house is allowed? Animals can only be moved with special permission from the Council, yet most, if not all, urban livestock keepers rear their animals without a permit. By-laws 5 and 6, requiring urban dwellers to remove manure, liquid filth and other animal waste, are never enforced. The fact that there are many senior government and party officials among the livestock keepers who ignore the by-laws with impunity is probably the best assurance for most other livestock keepers that they will not be prosecuted if they break the law. This is not unique to Morogoro because in every Tanzanian municipality virtually all the by-laws are ignored by most urban farmers.<sup>32</sup> Besides the fact that the municipal authorities do not have the means to effectively enforce them, there are other reasons as well. One is that the very people who are supposed to ensure the enforcement of the laws are those breaking them or, as Sawio (1993: 348) put it, 'it appears impracticable for a junior officer to punish his or her boss who is found violating the law'.

As far as local policy is concerned, Mbeya's policy can best be characterized as *laissez-faire*. Unrestricted crop cultivation is only allowed in the peri-urban

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<sup>32</sup> Mvena *et al.* (1991). There is little reason to expect that the present situation has changed since the beginning of the 1990s.



areas and in the built-up area only crops less than two feet. Animals are allowed if kept in zero-grazing,<sup>33</sup> and there is no assistance for the agricultural sector in the town. In the words of the Municipal Town Planner: 'We just let it go. There is no active support of any kind.'<sup>34</sup> The situation in Morogoro is different. Although the Acting Municipal Director there claims that<sup>35</sup> 'officially, farming in town is illegal', the policy is that the Municipality allows farming 'on the condition that environmental degradation is (...) prevented and city development is not being hindered'. Morogoro participates in the UNDP Sustainable Cities Programme, which suggests that urban agriculture has become an integral part of its town planning 'because of its importance for the people and for the food provision of the town'.<sup>36</sup> The policy implication of participation in this programme is mainly that both the Council and the Ministry of Agriculture are actively developing plots for urban farmers.

Keeping cattle in town – and especially in the built-up area – is generally regarded as an undesirable activity by the Morogoro authorities. According to the Acting Municipal Director (who himself was keeping two dairy cows at the time), 'livestock keeping has an impact on the environment and on safety on the roads' and 'there are many complaints from neighbours'; so 'the official policy is that cattle keeping is restricted to four animals, zero-grazing'.<sup>37</sup> The Ministry of Agriculture tries to discourage the keeping of too many cattle, for instance by raising fees for livestock<sup>38</sup> but 'the collection of the fees is problematic'.<sup>39</sup> Moreover, penalties are imposed on animals found roaming around.<sup>40</sup> According to the Municipal Agriculture and Livestock Development Officer, 'these measures worked because you nowadays see many fewer animals roaming around'.<sup>41</sup>

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<sup>33</sup> Mr M.O. Mhando, Municipal Agriculture and Livestock Development Officer, personal communication, 20 September 1999.

<sup>34</sup> Mr J. Mwangoge, Municipal Town Planner, Mbeya Municipality, personal communication, 21 September 1999.

<sup>35</sup> Mr E. Kalunelo, Acting Municipal Director, Morogoro Municipality, personal communication, 17 September 1999.

<sup>36</sup> Mr Mkupete, Head, Department of Town Planning, Morogoro Municipality, personal communication, 16 September 1999.

<sup>37</sup> Kalunelo, *op. cit.*

<sup>38</sup> For instance Tsh 1,000 per year per head of cattle or per pig, Tsh 800/yr per calf or donkey and Tsh 500/yr per goat or sheep.

<sup>39</sup> Mr Maeda, Municipal Agriculture and Livestock Development Officer, Morogoro Municipality, personal communication, 24 September 1999.

<sup>40</sup> For instance, Tsh 10,000 per head of cattle and Tsh 5,000 per goat or sheep.

<sup>41</sup> Maeda, *op. cit.*

At the time of the fieldwork (2000-2001), the Ministry of Agriculture in Morogoro was pursuing other policies as well.<sup>42</sup> One concerned the propagation of organic farming by bringing livestock keepers and crop cultivators together. Apparently this policy was successful to a certain extent because ‘crop cultivators now sell their crop residues to livestock keepers’. The next step was to be a reverse flow: manure going from livestock keepers to crop cultivators. More generally, the Ministry has started to educate farmers about environmental conservation and cultivators are, for instance, encouraged to grow trees along the edge of their plots. Zero-grazing is compulsory and animal waste should be disposed of properly, i.e. ‘solid waste should be used on the plots and urine should be collected and not allowed to flow onto the neighbour’s plot’. Finally, because it is impossible for most urban farmers to obtain credit, the Ministry has started to organize farmers into groups of 5 to 20 persons to form so-called ‘saving and credit schemes’. Several groups were set up in 1999 and they are now being encouraged in all wards.

### Legislation, policy and the poor

To what extent do existing legislation and policies influence the possibilities for the urban poor to engage in urban agriculture? National legislation and policies in Kenya in relation to farming in urban areas are vague and in fact the Local Government Act puts all decision-making power in the hands of the local authorities. In this Act, there is only one reference to urban agriculture and the urban poor, namely in Section 155, which states that every municipal or town council ‘shall have power (...) to engage in livestock and agricultural undertakings’ and

(...) to require the planting of any specified crops by persons for the support of themselves and their families *in areas which in the opinion of the (...) council are suffering from or likely to suffer from shortages of foodstuffs*. [emphasis added by author]

This means that, if it so wishes, Nakuru Municipal Council has the legal right to engage in or allow crop cultivation by the (very) poor and in areas where these people are living. The Localising Agenda 21 programme was a chance to put this into practice, all the more so as the programme focused on environmentally-conscious planning and development, with particular attention to low-income groups. That did not happen but legalizing the sector in the 2006 Environmental Management By-laws and the (draft) Urban Agriculture By-laws is an important step forward because it opens up the way for local government

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<sup>42</sup> Maeda, op. cit.

to stimulate the activity among the urban poor, for instance by creating easily accessible farming zones.

Meanwhile, various developments, instigated by NGOs but with the consent of the municipal authorities, have been going on to support (poor) urban farmers. The Agricultural and Rural Development Programme (ARDP) – under the Catholic Diocese of Nakuru – focused on small-scale farmers, providing them with indirect support (training) or direct support (e.g. loans for buying animals, materials for building a water tank for irrigation or a zero-grazing unit for dairy cattle). Although the programme mainly took place in the rural areas, several urban and peri-urban farmers in Nakuru Municipality were among the participants. In general, the programme was quite successful. As for the urban farmers in Nakuru, a comparison of this group with a group of ‘neighbours’ (i.e. urban farmers not participating in ARDP) showed that incomes from selling animals (mainly cattle) and animal products (mainly milk) were much higher among ARDP farmers (Foeken 2006: 102).

The Ecumenical Church Loan Fund (ECLOF) is a global initiative with its headquarters in Geneva, Switzerland. The Kenyan branch – ECLOF-Kenya – was launched in 1994. Besides the country’s head office in Nairobi, ECLOF-Kenya has offices in six other towns, Nakuru being one of them. ECLOF-Kenya supports the building of sustainable communities by providing fair credit services for human development in both rural and urban areas. One of its main objectives is ‘to increase accessibility to credit by the economically active and marginalized micro/small business and farming people of Kenya’. The Nakuru branch was set up in 2001 and three years later the Nakuru office was serving about 600 members/clients, most of whom were small-scale traders. A small proportion of them were farmers who were benefiting from ECLOF’s financial assistance for expanding or improving their farming activities. Nearly all of them were rural farmers engaged in dairy farming (zero-grazing) and poultry keeping. Five of the farmers could be classified as urban farmers, i.e. living and farming within the municipal boundary or, more precisely, in the peri-urban areas of Nakuru town. All five were involved in livestock keeping: three in dairy farming (zero-grazing), one in pig raising and one in poultry keeping. To be eligible, the potential member must be engaged in an income-generating activity (business or farming) and at the same time belong to a registered group. This is usually a group of friends or neighbours with a common interest. Members of a group who know each other well are able to act as co-guarantees for each other when applying for a loan.<sup>43</sup> While ECLOF-Kenya encourages

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<sup>43</sup> An example from yet another loan scheme, Pride Kenya, was the Baraka Women’s Group that consists of 36 members. Each member contributed Ksh 500 per month, with which members facing some crisis situation – such as death, sickness or the

already established groups, the majority of their members got together after learning about ECLOF's activities. This also applied to the four cases that are described in Foeken (2006). All four were low-income households (including one female-headed household) and they all managed to substantially raise their income by using the loan to expand their commercial (urban) livestock activities. One involved the improvement and expansion of a pig-farming business, an activity usually considered as one of the least desirable in an urban setting from an environmental point of view.

More recently, the previously mentioned initiative 'Local Participatory Research and Development on Urban Agriculture and Livestock Keeping in Nakuru' was launched in December 2004. This programme is an initiative by two NGOs (Urban Harvest, an international research body sponsored by CGIAR,<sup>44</sup> and Kenya Green Town Partnership Association), the University of Nairobi (Department of Soil Science) and the Municipal Council of Nakuru. The major aims of the programme are to further develop the Urban Agriculture and Livestock Keeping Research and Development Centre already established next to the Nakuru dump, and to help Nakuru urban farmers and livestock keepers to improve their livelihoods and contribute to urban security.

In Tanzania, despite the favourable national legislation and policies towards urban agriculture, local by-laws are such that urban agriculture is an illegal activity for most inhabitants because it is largely confined to the peri-urban zones. Yet, as in Nakuru, urban farming in both Mbeya and Morogoro is very common among the people living in the built-up area, and the local authorities ignore the situation. The two municipalities differ (at least they did at the time of the study in 2000-2001) insofar as policies regarding the sector were concerned. In Mbeya, a *laissez-faire* attitude prevails and the only 'policy' concerns restrictive measures when and where it is deemed necessary to intervene. The Municipal Council of Morogoro, on the other hand, has launched a policy focusing on the development of two types of plots:<sup>45</sup>

- 1) *Garden plots* of 1.5 to 3 acres in the so-called green-belt areas. 'The concept of garden plots is now part and parcel of town planning.' Green belts have been created along the rivers and 'other hazardous areas', such as mountain slopes. Somebody who is interested in a garden plot has to pay Tsh 65,000 for the necessary survey work. After that, he signs a lease contract with the municipality (based on the 1998 Land Act) for a period of 1 year, 33 years or 99 years. The 33-year contracts are the most common; the 99-year contracts involve larger plots. The municipality discourages one family from obtaining more than one plot 'but it cannot be avoided

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inability to repay the Pride Kenya loan – could be assisted (Samuel O. Owuor, field notes, 2003).

<sup>44</sup> Consultative Group on International Agricultural Research.

<sup>45</sup> Mkupete, op. cit.

entirely'. The leaser pays an annual 'land rent' or 'lease fee' of Tsh 20,000 to Tsh 25,000 depending on the size of the plot and is allowed to build a house on the plot 'but the predominant activity must be farming'. The garden plots 'have a long-term objective'.

- 2) Plots in the so-called *nguvukazi* areas. These are located on former sisal estates that have long since been abandoned and have become part of the town with the expansion of the town's boundaries. The municipality sub-divided these areas into 5-acre plots and each of the 19 wards in Morogoro has a right to some of the plots. The allocating of plots, which started in 1974, is taken care of by the ward leaders. The users pay a modest fee because use is of a temporary nature, as 'the present *nguvukazi* land will surely be used for further urban development'.

In addition, the Ministry of Agriculture in Morogoro acquired 3,000 hectares of land about 50 km outside the town for use by townspeople who would not otherwise have access to land.<sup>46</sup> The plots, an acre in size, cost Tsh 1,000 per acre for demarcation and are partly intended for former villagers who became urbanites after the town expanded and who subsequently lost their plots to urban development. This scheme can be seen in the context of a policy launched by the Tanzanian Prime Minister at the end of the 1990s that allowed each urban household to have four acres at its disposal: three to feed itself and one for commercial purposes.<sup>47</sup> According to this policy, the Municipal Council has to make a plan, allocate a budget and present it to the Ministry of Agriculture. Another initiative by the Ministry concerns the earlier-mentioned saving and credit schemes whereby urban farmers are organized in small groups in order to obtain a loan.

Do the urban poor benefit from policies such as those taking place in Nakuru and Morogoro? This depends first of all on how one defines 'poor'. Although policies are often, at least on paper, directed towards 'the poor', the 'very poor' can easily miss out. In Nakuru, participants in the ARDP and ECLOF programmes were already engaged in urban farming before joining the programme and were therefore unlikely to belong to the very poor. At the same time, the Nakuru study revealed that it is the very poor who were most underrepresented among urban farmers. Providing access for them to a piece of land would be more worthwhile than loan schemes. However, there is no such policy at present in Nakuru. In Morogoro, such a policy does exist but it is doubtful whether the very poor will benefit from it. The garden plots are simply too expensive (one-time costs for surveying and annual costs for renting). The *nguvukazi* plots might be affordable but allocation tends to be by means of personal networking, so the ones with the closest relationship to the ward leaders are usually the beneficiaries; and they are not likely to be the very poor.

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<sup>46</sup> Maeda, op. cit., 17 September 1999.

<sup>47</sup> Kalunelo, op cit.

Finally, the plots provided by the Ministry of Agriculture might be affordable but the distance (50 km away) and the transport costs involved are a major constraint for the very poor.

## Conclusions

It is widely recognized – even by many municipal authorities – that urban agriculture is not only common practice but also that it is an important source of livelihood for many (poor) urban dwellers in Sub-Saharan Africa. But because the urban poor often lack the necessary resources (land, capital), they are underrepresented among urban farmers. Moreover, those urban poor who do practise urban farming usually perform worse than their better-off colleagues. This can largely be contributed to smaller plots and a lack of inputs, particularly modern and expensive inputs like irrigation and chemicals in urban crop cultivation and improved breeds, drugs and feed supplements in urban livestock keeping. In addition, few of the poor urban farmers can afford to hire additional labour and they also receive less attention from professional advisors.

In the three East African towns investigated in this chapter, urban agriculture is a very common economic activity. However, legislation, policy and practice show contradictions within and between the various levels of decision making (although recent developments in Nakuru show that these contradictions seem to be disappearing). Martin *et al.* (2000) describe a similar situation in Harare (Zimbabwe) and, to a lesser extent, in Pretoria and Cape Town (South Africa). Such contradictions can put the local authorities in a difficult situation. On the one hand, the activity is illegal or is only allowed under strict conditions, as used to be the case in Nakuru and still is in Morogoro and Mbeya. On the other hand, attempts (usually by NGOs) to promote the activity with the aim of improving the situation of the poor are being supported or even carried out by the municipality itself, for example in Nakuru and Morogoro. The strange thing is that the by-laws, even though implicitly recognizing urban farming as an important livelihood component for many of the urban poor and now as a *legal* urban activity, can in practice remain as restrictive as ever.

If the authorities are serious about reducing urban poverty by means of urban farming, the first thing to do is to integrate urban agriculture into urban planning, for instance, by creating zones for farming purposes. Access to land is a major obstacle for many of the urban poor, so providing land should have the highest priority. Institutional support in combination with the creation of farmers' associations is another prerequisite for successful poverty eradication by means of urban agriculture. Examples like the credit schemes in Nakuru and

the farmers' cooperatives in Cotonou<sup>48</sup> are promising developments in this respect. What such initiatives have in common is that the private sector takes the lead and local government allows, or maybe even supports, proposals. Only in Morogoro do some initiatives originate from the municipal government itself. It is time for local authorities to give up their wait-and-see attitude and to go a step further than only recognizing the urban farming sector in legal, policy and planning terms.

## References

- Amar-Klemesu, M. 2000, 'Urban Agriculture and Food Security, Nutrition and Health', in: N. Bakker *et al.* (eds), *Growing Cities, Growing Food. Urban Agriculture on the Policy Agenda*, Feldafing: Deutsche Stiftung Für Internationale Entwicklung (DSE), pp. 99-117.
- Bakker, N., M. Dubbeling, S. Guendel, U. Sabel-Koschella & H. De Zeeuw (eds) 2000, *Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda*. Feldafing: DSE.
- Bigsten, A. & S. Kayizzi-Mugerwa 1992, 'Adaption and Distress in the Urban Economy: A Study of Kampala Households', *World Development* 20 (10): 1423-41.
- Brock, B. & D. Foeken 2006, 'Urban Horticulture for a Better Environment: A Case Study of Cotonou, Benin', *Habitat International* 30: 558-78.
- de Haan, L. & A. Zoomers 2003, 'Development Geography at the Crossroads of Livelihood and Globalisation', *Tijdschrift Voor Economische En Sociale Geografie* 94 (3): 350-62.
- Ellis, F. 2000, *Rural Livelihoods and Diversity in Developing Countries*, Oxford: Oxford University Press.
- Flynn, K.C. 2001, 'Urban Agriculture in Mwanza, Tanzania', *Africa* 71 (4): 666-91.
- Foeken, D. 2005, 'Urban Agriculture in East Africa as a Tool for Poverty Reduction: A Legal and Policy Dilemma?', Leiden: African Studies Centre, Working Paper 65.
- Foeken, D. 2006, "To Subsidise My Income": *Farming in an East African Town*, Leiden: Brill.
- Foeken, D. & A.M. Mwangi 2000, 'Increasing Food Security through Urban Farming in Nairobi', in: N. Bakker *et al.*(eds), *Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda*, Feldafing: DSE, pp. 303-28.
- Foeken, D. & S.O. Owuor 2000, 'Urban Farmers in Nakuru, Kenya', Leiden: African Studies Centre, Working Paper 45.
- Foeken, D., M. Sofer & M. Mlozi 2004, 'Urban Agriculture in Tanzania: Issues of Sustainability', Leiden: African Studies Centre, Research Report 75.
- Hansen, K.T. & M. Vaa 2004, *Reconsidering Informality. Perspectives from Urban Africa*, Uppsala: Nordiska Afrikainstitutet.
- Jacobi, P., J. Amend & S. Kiango 2000, 'Urban Agriculture in Dar es Salaam: Providing an Indispensable Part of the Diet', in: N. Bakker *et al.* (eds), *Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda*, Feldafing: DSE, pp. 257-78.

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<sup>48</sup> See Brock & Foeken (2006).

- Jamal, V. & J. Weeks 1988, 'The Vanishing Rural-Urban Gap in Sub-Saharan Africa', *International Labour Review* 127 (3): 271-92.
- Kaag, M., R. van Berkel, J. Brons, M. de Bruijn, H. van Dijk, L. de Haan, G. Nooteboom & A. Zoomers 2004, 'Ways Forward in Livelihood Research', in: D. Kalb, W. Pansters & H. Siebers (eds), *Globalization and Development: Themes and Concepts in Current Research*, Dordrecht: Kluwer Academic Publishers, pp. 49-74.
- Kitilla, M. 2001, 'Urban Agriculture: Current Policies and Recent Developments', in: 'Proceedings of the National Workshop on Urban Agriculture – Potential, Support and Information Needs, Dar Es Salaam, Tanzania, 11-13 June 2001', Dar es Salaam: Urban Vegetable Promotion Project and University of Dar es Salaam, Faculty of Arts and Social Sciences, pp. 76-86.
- Lee-Smith, D. & P.A. Memon 1994, 'Urban Agriculture in Kenya', in: A.G. Egziabher *et al.* (eds), *Cities Feeding People: An Examination of Urban Agriculture in East Africa*, Ottawa/Nairobi: IDRC, pp. 67-84.
- Martin, A., N. Oudwater & K. Meadows 2000, 'Urban Agriculture and the Livelihoods of the Poor in Southern Africa', Paper presented at the International Symposium 'Urban Agriculture and Horticulture: The Linkage with Urban Planning', Berlin, 7-9 July.
- MCN 1999, 'Strategic Nakuru Structure Plan. Action Plan for Sustainable Urban Development of Nakuru Town and its Environs', Nakuru: Municipal Council of Nakuru (Final draft).
- Mlozi, M.R.S. 2001, 'Political Economy of Urban Agriculture in Tanzania', in: 'The Political Economy of Urban and Peri-Urban Agriculture in Eastern and Southern Africa', 'Proceedings of the MDP/IDRC Workshop, Harare, Zimbabwe, 28 February to 2 March, Harare: Municipal Development Programme, pp. 50-56.
- Mougeot, L.J.A. 1994, 'African City Farming in a Global Perspective', in: A.G. Egziabher *et al.* (eds). *Cities Feeding People: An Examination of Urban Agriculture in East Africa*, Ottawa/Nairobi: IDRC, pp. 1-24.
- Mougeot, L.J.A. 2000, 'Urban Agriculture: Definition, Presence, Potentials and Risks', in: N. Bakker *et al.* (eds), *Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda*, Feldafing: DSE, pp. 1-42.
- Mougeot, L.J.A. 2005, 'Introduction', in: L.J.A. Mougeot (ed.), *Agropolis: The Social, Political and Environmental Dimensions of Urban Agriculture*, London: Earthscan, pp. 1-29.
- Mvena, Z.S.K., I.J. Lupanga & M.R.S. Mlozi 1991, *Urban Agriculture in Tanzania: A Study of Six Towns*, Morogoro: Sokoine University of Agriculture, Department of Agricultural Education and Extension, Unpublished research report.
- Mwangi, A.M. 1995, 'The Role of Urban Agriculture for Food Security in Low Income Areas in Nairobi', Leiden: African Studies Centre, Food and Nutrition Studies Programme, Report No. 54.
- Mwangi, A.M. & D. Foeken 1996, 'Urban Agriculture, Food Security and Nutrition in Low-Income Areas in Nairobi, Kenya'. *African Urban Quarterly* 11 (2-3): 170-79.
- Mwangi, S.W. 2001, 'Local Agenda 21 Experiences in Nakuru, Kenya: Processes, Issues and Lessons', London: International Institute for Environment and Development (IIED), Urban Environmental Action Plans & Local Agenda 21 Series, Working Paper 10.



- Nugent, R. 2000, 'The Impact of Urban Agriculture on the Household and Local Economies', in: N. Bakker *et al.* (eds), *Growing Cities, Growing Food. Urban Agriculture on the Policy Agenda*, Feldafing: DSE, pp. 67-97.
- Owuor, S.O. 2006, 'Bridging the Urban-Rural Divide: Multi-Spatial Livelihoods in Nakuru Town, Kenya', Leiden: African Studies Centre, Research Report 81.
- Owuor, S.O. & D. Foeken 2006, 'Surviving in the Neighbourhoods of Nakuru, Kenya', in: P. Konings & D. Foeken (eds), *Crisis and Creativity: Exploring the Wealth of the African Neighbourhood*, Leiden: Brill, pp. 22-45.
- Rakodi, C. 2002, 'Economic Development, Urbanization and Poverty', in: C. Rakodi & T. Lloyd-Jones (eds), *Urban Livelihoods: A People-Centred Approach to Reducing Poverty*, London: Earthscan, pp. 23-34.
- Rogerson, C.M. 1997, 'Globalization of Informalization: African Urban Economies in the 1990s', in: C. Rakodi (ed.), *The Urban Challenge in Africa: Growth and Management of its Large Cities*, Tokyo: United Nations University Press, pp. 337-370.
- Satterthwaite, D. 1997, 'Urban Poverty: Reconsidering its Scale and Nature', Background paper for the series of workshops on poverty reduction in urban areas organized by the International Institute for Environment and Development (IIED), UK.
- Sawio, C. 1993, 'Feeding the Urban Masses? Towards an Understanding of the Dynamics of Urban Agriculture and Land Use Change in Dar Es Salaam', Worcester: Clark University, Unpublished PhD Thesis.
- Simon, D. 1997, 'Urbanization, Globalization and Economic Crisis in Africa', in: C. Rakodi (ed.), *The Urban Challenge in Africa: Growth and Management of its Large Cities*, Tokyo: United Nations University Press, pp. 74-108.
- Smit, J., A. Ratta & J. Nasr 1996, *Urban Agriculture: Food, Jobs and Sustainable Cities*, New York: United Nations Development Programme (UNDP).
- UNCHS/Habitat 1996, *An Urbanizing World: Global Report on Human Settlements*, London: Oxford University Press (for United Nations Centre For Human Settlements).
- URT 2000, *National Human Settlements Development Policy*, Dar es Salaam: United Republic of Tanzania, Ministry of Lands & Human Settlements Development, Government Printers.
- Versleijen, N. 2002, 'Sukuma! A Social Analysis of Urban Agriculture: Case Studies from Nakuru Town, Kenya', Wageningen: Wageningen University and Research Center, Department of Rural Development Sociology, MSc Thesis.

## Livelihoods and income diversification among artisanal fishers on the Kenyan coast

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*Artisanal fishers are generally regarded as a poor, if not destitute, group. This chapter focuses on income diversification among fishers on the Kenyan coast and investigates the benefits of diversification as a livelihood strategy. Fisher households engaged in more economic activities than their non-fisher neighbours and the incidence of poverty among the fishers was no higher than among the general rural population in the region. Two types of income diversification with differing effects were identified – ‘earner’ and ‘activity’ diversification respectively. The policy implications of creating alternative employment opportunities for fisher communities are also discussed.*

### Introduction

Kenya belongs to the bottom 20% of countries in the world in terms of economic and human development (UNDP 2004). In 1997, about half of Kenya's population (52%) was termed poor by national standards and the number was on the increase (Kenya 2001).<sup>1</sup> Among the poorest regions of the country were North-Eastern, Rift Valley and Coast Provinces; with 64% of the rural population in the latter termed as poor. Mombasa, with about a third of the population of Coast Province, however, had the lowest percentage of urban poor of

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<sup>1</sup> The poverty line utilized in this case was Ksh 1239 per person per month in the rural areas and Ksh 2648 per person per month in the urban areas (Kenya 2001: 13). For the rural areas this amounts to US\$ 19.8 per person per month or US\$ 0.66 per person per day. The exchange rate in 1997 was US\$ 1.0 = Ksh 62.7 (Kenya 2003).

Kenya's five major cities (Kenya 2001). This disparity between the rural and urban areas of Coast Province has been noted before (Ikiara 2000) and the reasons for poverty in the rural areas include the climate and poor agricultural conditions, a lack of employment opportunities and low levels of education. The backwardness of the rural areas is aggravated by the 'ribbon' type settlement, meaning that most people live relatively far from the main economic and employment opportunities. Employment creation throughout the province has been recommended as a development priority (Masai 2000, Hoorweg *et al.* 2000).

Marine fisheries are one of the few economic activities that are to be found all along the coast and employ an estimated 10,000-12,000 fishers (Hoorweg *et al.* forthcoming). Including workers in support industries and household dependents, it is estimated that about 150,000-200,000 people out of a total of 2.45 million in 1999 (~8% of the population) are dependent on the fishing industry. However, little is known about household incomes and the income composition of local fishers. The impression is that both vary greatly among and within fishing villages. On some parts of the coast fishers are regarded as the 'poorest of the poor', whereas in other areas they are considered well-off (Mwadime 1996). Furthermore, little is known about whether fishers have other resources and, if so, the nature of these resources and whether households are wholly or partly dependent on fishing. Income opportunities of fisher households differ greatly not only along the coast but also between ethnic groups due to geographical, social and cultural factors.

Although fishers in developing countries are usually regarded as poor, in absolute as well as relative terms, little attention, is being given to fishers in the current poverty debate, according to Béné (2003, 2004) who distinguishes between endogenous and exogenous explanations of poverty among fishers. The endogenous explanation emphasizes low levels of natural resources and industry-related factors. Fishers are poor mainly as a result of the open access to resources and the influx of people into the fishing sector, both of which are contributing to economic overexploitation. The exogenous explanation considers the fishery sector in relation to other sectors of the economy and argues that one should expect a wage-equilibrium between the fishery and non-fishery sectors. But since fishers usually live in remote areas, this is often not the case and a lack of alternative employment is one of the key factors contributing to low standards of living.

Kenya's coastal and marine environments are threatened by naturally occurring processes, the growing subsistence needs of the coastal population and increased economic activities (Hoorweg 1998). Examples of natural processes are coral bleaching, sea-level change and beach erosion. Growing subsistence needs are behind the over-harvesting of mangrove trees, illegal shell collecting

and intensive fishing. Increased economic activities are resulting in more sewage and waste disposal from tourist hotels, industrial pollution of the waters near Mombasa and siltation at river exits due to soil erosion up-country. The first national environment plan in 1994 listed many of these issues but efforts at 'integrated coastal management' since then have been limited to the Mombasa and Diani areas (MENR 1994, McClanahan *et al.* 2005).

Artisanal fishers also contribute to the degradation of marine resources as intensive fishing can affect the ecological balance and result in a loss of local biodiversity. Poverty has long been associated with the overexploitation of natural resources, and it was generally assumed that income improvements are needed among the local population to reduce the pressure on these resources (Ellis 2000). Destructive fishing practices, such as the use of explosives, seine nets and poison, can alter the terrain as well as the ecological balance of the reefs and the sea bed. Local fishers generally do not approve of destructive fishing methods since they are aware that this will ultimately lead to poorer catches. Indeed, nearly all fishers were concerned with the degradation of marine resources and mentioned declining fish catches (Hoorweg *et al.* 2006). Other reasons given by fishers included increased number of fishers, the gazettement of no-take areas, bad weather (notably the heavy El Niño rains in 1997/98) and competing fisheries such as commercial trawling.

Faced with dwindling resources and more competition not only from fellow fishers but also from tourism and human settlement, fishers have little choice but to adjust to the changing conditions. One alternative is to fish more intensively, for example, by investing in vessels and gear, but this is beyond the means of most fishers. Another alternative lies in livelihood diversification, which means engaging in economic activities other than fishing (Allison & Ellis 2001). Most fishers, in any case, do not set out in the windy and rainy season when the waters are too rough but use this period instead for other activities.

Livelihood diversification is a widespread survival strategy among rural households in Africa (Ellis 2000). Most studies on household diversification have focused on farm households and pastoralists and less attention has been paid to fisher households. Diversification is generally expected to improve household resources, if not resulting in increases in income then at least resulting in a wider income spread, although other researchers consider specialization as the more efficient way of improving income. It is important though to distinguish between 'activity' diversification at the individual level, where the head of household has income from more than one economic activity, and 'earner' diversification at the household level, where a household has more than one income earner (Ellis 1999, Woodhouse 2002).

Between 1999 and 2001, the RDM project studied income diversification among fishers on the Kenyan Coast, the pressure on marine resources and the

relationship between the two.<sup>2</sup> The relationship between income diversification and pressure on marine resources is discussed elsewhere (Hoorweg *et al.* 2006). This chapter focuses on income diversification among fishers and investigates whether diversification is beneficial as a livelihood strategy. It addresses two main questions (1) how fishers' incomes compare with those of non-fishers, and (2) how diversification affects the incomes of fishers and the incidence of poverty among them.

### Study area

The East African coast stretches for 5500 km and includes the coasts of Somalia, Kenya, Tanzania and Mozambique. The Kenyan coast runs for about 600 km from the Somali border in the north to the Tanzanian border in the south. The continental shelf is narrow except off Malindi and round the mouth of the Tana River (Obura 2001). The northern half of the coast (north of Malindi) consists of broad sedimentary plains, drained by the Tana and Athi-Sabaki rivers that bring extensive sedimentation from their agricultural and industrial hinterlands. The shoreline along the southern coast consists of rocky fossil coral cliffs, mangrove stands and sandy beaches. It is characterized by a continuous fringing reef at a distance of 0.1 to 1.0 km offshore that offers important fishing grounds for the artisanal fishers (Frazier 1993, UNEP 1998). The climate on the Kenyan coast is dominated by pressure systems from the western Indian Ocean and two distinct monsoon periods. The northeast monsoon prevails from November to March with relatively gentle seas and favourable fishing conditions (the *kaskaki* season) whereas the southeast monsoon lasts from May to October when seas are generally rough and fishing conditions less favourable (the *kusi* season).

The coastal population is of mixed origin (Middleton 2000), with the Mijikenda as the largest group. These agriculturalists used to live inland on the hilly coastal range but many have moved to the coastal strip over the last 150 years. They are subdivided into seven sub-groups of which the Giriama are the largest. Since independence in 1963, many immigrants of up-country origin have also moved to the coast seeking employment in Mombasa and, more recently, in the tourism industry. The original inhabitants of the coastal strip

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<sup>2</sup> RDM is the acronym for 'Resource Diversification and Management among Coastal Fisher-folk in Kenya', a joint project by Moi University (Kenya), Ben Gurion University (Israel) and the African Studies Centre (the Netherlands). The project was funded by the Netherlands Israel Research Project under contract NIRP-97-145-7. Detailed descriptions of surveys, studies, methods and sample characteristics can be found in the project's final report (Hoorweg, Degen & Wangila 2003) and a monograph (Hoorweg, Wangila & Degen forthcoming).

were the Swahili and Bajun. The Swahili are regarded as the offspring of Arab settlers and the indigenous Bantu and inhabited the 'stone' towns, were involved in trading and had political dominance. The Bajun are regarded as either an independent ethnic group or a sub-group of the Swahili and are considered to be fishers par excellence. Since the 1960s however, the Mijikenda have joined the fisheries in large numbers and now pose considerable competition (Glaesel 1997).<sup>3</sup>

Coast Province has six districts. From north to south these are: Lamu, Tana River, Malindi, Kilifi, Mombasa and Kwale. The study area is situated in Malindi and Kilifi districts, roughly 125 km from Ras Ngomeni (the Ngomeni peninsula) to Takaungu Creek. For this study, four landing sites were selected that differed in their proximity to marine reserves and their potential access to employment in nearby urban centres (Map 10.1). Two sites were near a marine reserve, one with employment opportunities nearby in Malindi (Mayungu) and one without (Uyombo), while two of the landing sites were a long way from any marine reserve, one with employment opportunities nearby in Mombasa (Takaungu) and one without (Ngomeni).

From north to south, the Ngomeni landing site is characterized by the absence of the fringing reef, open access to the sea, mangroves, mud flats and sandy beaches. The Mayungu landing site is a small cove surrounded by dry, rocky land, with the reef relatively far out to sea. Uyombo lies at the entrance to the Mida creek, a shallow estuary, large parts of which are dry during ebb tide. The Takaungu landing site has a steep rocky coast and is on a deep creek that is also dry at ebb tide.

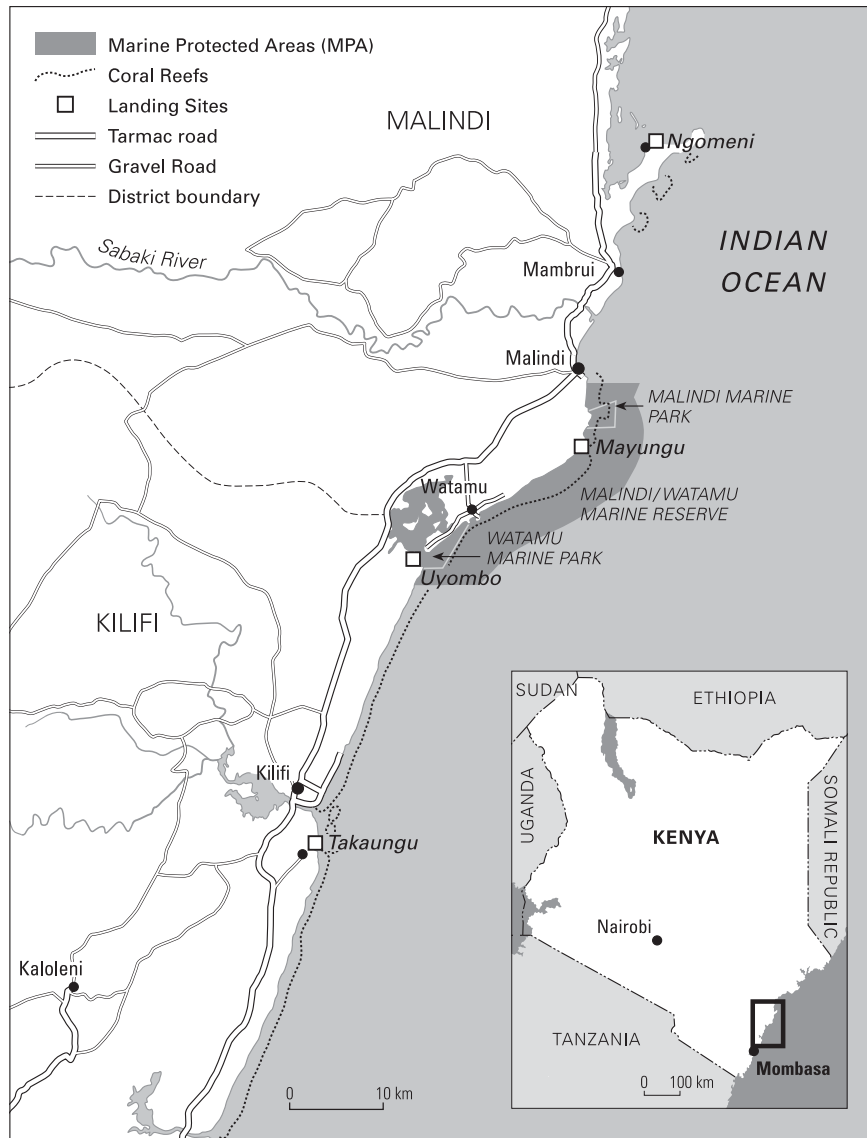
## Method

Data for the household survey were collected at the four landing sites by two research assistants and a field supervisor between October 2000 and March 2001. The study sample comprised fishers (N=133) and non-fisher (N=80). The fishers consisted of two subgroups: firstly, a group of boat captains and independent fishers who operate alone (N=83)<sup>4</sup>, and secondly, a group of crew members (N=50). Fishers were selected from the records of an earlier study of fish landings at these sites. The first step was to identify boat captains and inde-

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<sup>3</sup> Nowadays the fisher population consists of fishers who started out as fishers and may or may not have taken extra jobs, and others with land-based experience who started fishing as an extra activity. In practice, it is difficult to distinguish between the two groups. This issue is further discussed in Versleijen & Hoorweg (2006).

<sup>4</sup> Independent fishers (N=26) mostly used small boats and are grouped together with boat captains in the text.



Map 10.1 Malindi and Kilifi Coast with landing sites included in the study

pendent fishers who had been seen regularly at the landing sites by the field assistants. Contact was made with the selected fishermen on the beach and visits to their homes were then arranged. During the visit, they were asked to identify the nearest household where the head of the household was not a fisher. The boat captains were further asked to identify the household of a regular crew

member living nearby. Since the selected fishers, crew members and non-fishers were neighbours, this selection procedure ensured that the cases were matched for farming conditions and distance to employment opportunities.

Household size is an important factor as it affects not only household needs but also the available labour pool. Consequently, viewing economic activities and livelihood strategies exclusively from the perspective of the household head is incomplete. The economic activities of wives and other household members need to be taken into consideration, although it would be wrong to assume that all income sources are pooled in one common household budget.

The head of the household and his wife were interviewed in all the households (as was the fisher concerned if he was not the household head). The following areas of information were covered: living conditions, household composition, employment characteristics, farming activities, fishing activities, fish conservation and food consumption. In all cases, respondents were also questioned about the income of the head of the household from his various economic activities as well as the contributions to the household income by the wife and resident children and the activities in which they are engaged.<sup>5</sup>

## Results

Heads of household were mostly younger than 40 (55.3%) and the majority of respondents were of Mijikenda origin (77.5%). There were more Bajun among the fishers (15%) than in the non-fisher group (5%). Demographic characteristics showed only small differences between fishers and non-fishers. The average household size was 7.7 among fisher groups and 6.8 among non-fishers. Among non-fishers, 27.5% of the heads had no formal education compared to 33.9% among fishers. The quality of housing and hygiene were slightly better among non-fishers than fishers.

### *Economic activities*

The type and frequency of economic activities in households are detailed in Table 10.1, including the participation of different household members in fishing, agriculture, wage employment and self-employment. The last category consisted of activities that, in practice, varied greatly in type and importance. Among the fisher households, nearly all heads were involved in fishing. In about half of the fisher households, the heads were involved in farming, followed by self-employment and wage employment, the latter two together accounting for 18%. Among the non-fishers, none of the heads – by definition –

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<sup>5</sup> Originally, the question referred to adults in the household but there was only one case where this was not a grown-up child.



was involved in fishing; nearly all were either self-employed or involved in wage employment. In this group, half of the respondents were also involved in farming.

*Table 10.1* Households with different members engaged in various economic activities (%)

	FISHER (N=133)			NON-FISHER (N=80)		
	<i>Head</i>	<i>Wife</i>	<i>Other adults</i>	<i>Head</i>	<i>Wife</i>	<i>Other adults</i>
Fishing	86.5	0.0	39.1	0.0	0.0	3.8
Farming	50.4	40.6	29.3	51.2	30.0	20.0
Self-employed	14.3	18.0	17.3	52.5	18.8	21.3
Wage employment	3.8	0.8	21.8	33.8	1.3	25.0

About three-quarters of the heads were married and about three-quarters of the wives reported an economic activity other than household chores. There was little difference between the fisher and non-fisher households in this respect. In 30-40% of the households, wives were involved in farming; in about 20% of the households, they were involved in vegetable and food selling, plaiting *makuti* (coconut-leaf thatch) and other handicrafts.<sup>6</sup> Other adults in the household usually consisted of grown-up children. In about 40% of the households, grown-up children were, like their fathers, involved in fishing. In 20-30% of the households, they were involved in farming; and in about 40% in 'employment' of some kind.<sup>7</sup> In all, fisher households reported economic activities of household members more frequently than non-fisher households, particularly those of grown-up children. This is probably related to the larger household size of the former.

Apart from fishing, farming was the most common activity reported in both groups. Almost two-thirds of the fishing households had farmland (Table 10.2). The non-fishers reported farmland more often and, perhaps more importantly, had plots that were larger in size than those of the fishers. The land was used to cultivate food crops that were mainly used for home consumption with little or none sold. Almost half the households cultivated tree crops and about a third

<sup>6</sup> Fish trading, perhaps surprisingly, was not an important activity in the households surveyed except among the crews where 15% of the wives were engaged in fish trading or processing.

<sup>7</sup> The terms 'employment' and 'employment activities' in the text refer to self-employment and wage employment together.

sold part of their harvest. Approximately 10% owned cattle, 46% goats and/or sheep and 56% had chickens and/or ducks. Sales of milk and eggs were negligible. In general, non-fishers had slightly more farm assets than fishers.

*Table 10.2* Farming characteristics by study group

	Fisher (N=133)	Non-fisher (N=80)
Farmland available (%)	64.7	73.7
Average farm size (acres)	3.7	5.6
Sale of food crops (%)	3.8	11.3
Sale of tree crops (%)	33.1	38.8
Sale of milk (%)	6.8	3.8
Sale of eggs (%)	–	2.5

Only 10% of the respondents stated that their income was sufficient to feed their household (Table 10.3) and 15-20% said that they earned more than half the income they needed. In many households, however, the respondents reported that they earned only half of what was needed and a quarter earned even less. The latter group of needy cases were more prevalent among non-fisher than among fishers (33% vs. 22%).

*Table 10.3* Responses as to whether income was sufficient to meet household needs, by study group (%)

	Fisher (N=124)	Non-fisher (N=72)
Sufficient	11.3	9.7
More than half of what required	17.7	16.7
Half of what required	49.2	40.3
Less than half of what required	21.8	33.3
Total	100	100

There was little difference between fishers and non-fishers in the number of households that received contributions from different household members. More than 89% of households had income from the head, 25-30% had income from wives, and about 20% reported income from 'other' household members.

In summary, the main difference between the study groups lies in the fewer economic activities among non-fishers, which can be traced to the absence of fishing as an economic activity in that group.

#### *Household income*

The total income of fishers was estimated at Ksh 1952 per week, almost 50% higher than the Ksh 1323 of non-fishers, which is a significant difference (Table 10.4).<sup>8</sup> The proceeds from fishing comprised 74% of fishers' incomes; with the rest coming from farm sales (16%) and employment activities (10%).<sup>9</sup> Income of non-fishers, on the other hand, depended largely on self-employment (48%) or wage labour (32%) and was spread more evenly. Income from agriculture was nearly the same as that of fishers and was relatively low, which agrees with earlier information on the extent of farming.

*Table 10.4* Household income composition by study group (average; Ksh/week)

	Fisher (N=127)	Non-fisher (N=76)
Fishing	1439	0
Farming	305	262
Self-employed	159	641
Wage employment	50	420
Total	1952	1323
(s.d.)	(1156)	(854)

Earnings from fishing comprised a large proportion of the income in fishers' households, with an average of Ksh 1439 per week. Non-fishers, on the other hand, had higher incomes from employment with an average of Ksh 850 per week (vs. Ksh 464), although this was only partial compensation and their total income was considerably less than those of fishers. From an income point of view, it is clearly unattractive to abandon fishing for land-based activities. This

<sup>8</sup> Analysis of variance (N=187; dependent variable: household income; covariate: household size):

	df	F	p
Covariates	1	7.19	.01
Main effect	1	15.27	.00

<sup>9</sup> The incomes calculated in this study do not include the value of subsistence crops grown for own consumption. If these had been included, the comparison with the general population would have been more favourable.

does not imply that diversification cannot be successful but that it can only be beneficial in combination with fishing. In conclusion, the answer to the first research question is that fisher households realized higher incomes than non-fisher households and that the difference was mainly due to earnings from fishing.

With an average household size of 7.7 people, the earlier-mentioned household income of Ksh 1952 per week equals Ksh 1090 per person per month, below the national poverty line of Ksh 1239 per month (see Footnote 1). From these figures it can be calculated that 59% of fisher households fell below the poverty line. This compares with 64% among the rural population in Coast Province, as mentioned earlier. It is clear, therefore, that fishers do not fare worse than the province's rural population in general.<sup>10</sup>

### *Diversification*

Diversification among fishers occurred when the household was not dependent on only one income source. This lofty position was achieved in two ways. The first occurred at the individual level when fishers had more than one economic activity, which is referred to as activity diversification. The second occurred at the household level when other household members had incomes that contributed to household expenses namely earner diversification. Activity diversification was more common than earner diversification (51% vs. 39%)<sup>11</sup> and the two types occurred largely independently of each other (48% of the cases had the same score on the two indicators; 52% scored differently).

To address the question as to whether diversification resulted in changes in income level or changes in income composition, the 'single' and 'multiple' livelihood scenarios were examined among fisher households. In the case of the activity diversification of the head of a household (Table 10.5), his income from fishing decreased by Ksh 250 per week but this was compensated for by income from farming and self-employment so that the head's total income was slightly higher, although this was not statistically significant. Activity diversification clearly led to a greater spread of income but not to a substantially higher income.

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<sup>10</sup> Willman (2004: 247) has argued that poverty is not only decided by level of income but that fishers are often looked down upon because of their poor education, bad diet and their low level of political participation. In the present study, the fishers' group did indeed have less formal education but there were only small differences in diet and this was not to the detriment of the fishers' group (Hoorweg *et al.* forthcoming).

<sup>11</sup> Non-fishers were not included in any further analyses. The 22 fishers that were not heads of households were also omitted from further analysis. The remaining households numbered 111.

*Table 10.5* Head's income composition by activity diversification (fisher households; average; Ksh/week)

	Single activity (N=54)	Multiple activities (N=57)
Fishing	1607	1356
Farming	25	283
Self-employment	0	96
Wage employment	0	14
Total	1633	1750
(s.d.)	(1019)	(1018)

*Table 10.6* Household income composition by earner diversification (fisher households; average; Ksh/week)

	Single earner (N=68)	Multiple earner (N=43)
Fishing	1469	1548
Farming	157	324
Self-employment	66	276
Wage employment	3	44
Total	1696	2192
(s.d.)	(1071)	(989)

*Table 10.7* Household incomes by different types of diversification (fisher households)

	No diversifi- cation	Activity diversifi- cation	Earner diversifi- cation	Activity & earner diversification	Total
No. of cases	32 (29%)	36 (32%)	22 (20%)	21 (19%)	111 (100%)
Household income (average Ksh/week)	1670	1718	2102	2286	1888

This was different for earner diversification (Table 10.6) where incomes from fishing were nearly the same among households of single earners and multiple earners. Among multiple earners, farming and self-employment were the main sources of extra income. Earner diversification led to higher incomes without a shift away from fishing.

Table 10.7 presents the distribution of the two types of diversification in fisher households. In 19% of households, diversification of both kinds was present, whereas no diversification at all was found in 29% of households. Furthermore, 32% and 20% reported either activity or earner diversification. Households with both diversifications had the highest average household income, followed by households with earner diversification only, then activity diversification only and finally no diversification. Analysis of variance revealed that there were significant income differences because of earner diversification but not because of activity diversification. These differences were independent of household size.<sup>12</sup>

In conclusion, the answer to the second question is that earner diversification resulted in higher incomes and that activity diversification added little to income levels but resulted primarily in changes in income composition. A follow-up question was whether the findings regarding activity diversification applied to all categories of fishers. The next section examines whether diversification trends differed between boat captains and crew members.

*More about activity diversification*

There was little difference between boat captains and crew members in terms of total income. The two groups earned 91% and 79% of their incomes respectively from fishing. Captains reported an income from fishing that was 15% higher than crew members. This was expected since boat captains were either boat owners or leased boats from *tajiri* (wealthy local entrepreneurs) and, as such, customarily receive a share of the catch. Crew members, however, had higher incomes from farming and self-employment and thus managed to earn the same total income.

The income composition of boat captains and crew with different livelihood scenarios is given in Table 10.8. Boat captains who focused only on fishing had

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<sup>12</sup> Analysis of variance (N=111; dependent variable: household income; covariate: household size):

	df	F	p
Covariate	1	2.47	.12
Main effects	2	2.31	.10
Activity diversification	1	0.01	.91
Earner diversification	1	4.59	.03
Two-way interactions	1	0.15	.70

the highest income from fishing, about Ksh 1740. Boat captains who had other economic activities averaged Ksh 1350 per week from fishing. Among crew members, income from fishing was also about Ksh 1350 per week, irrespective of whether they had other economic activities or not. The picture changed, however, when the heads' total incomes were examined. These were not easy to interpret because trends differed within the sub-groups. Among boat captains, income from a single livelihood was higher than that from a diversified livelihood. The opposite was true for crew members. It is likely that boat captains invested time in the repair and maintenance of equipment to be successful and needed time to organize fishing trips and make arrangements for the sale of their catch. These preparations were vital to the success of their fishing enterprise. If time were spent on other economic activities, then income from fishing would decrease accordingly. This was not the case for the crew. Diversified crews managed to use the remaining time economically, adding more than 50% to their fishing incomes with non-fishing activities and realizing the highest income of all groups. Crew members without extra economic activities, however, were in the lowest income group.

*Table 10.8* Income composition of the household head by fisher status and activity diversification (average; Ksh/week)

	<i>Boat Captains</i>			<i>Crew Members</i>		
	Total (N=73)	Single Activity (N=33)	Multiple Activity (N=40)	Total (N=38)	Single Activity (N=21)	Multiple Activity (N=17)
Fishing	1559	1744	1350	1357	1352	1362
Farming	135	0	287	247	33	511
Self employment	20	0	43	118	0	265
Wage labour	0	0	0	5	0	12
Total income head (s.d.)	1714 (934)	1744 (1046)	1680 (867)	1727 (1067)	1386 (770)	2149 (1245)

## Conclusion

This chapter has examined the livelihoods of fishers, based on a survey among fisher and non-fisher households living in the same vicinity. This means that the external variables of farming conditions and (distance to) employment opportunities were matched. The study revealed that fisher households were engaged in more activities than non-fisher households and that they clearly had an advantage and a broader resource base. Non-fishers had more farming assets but fishers also engaged in farming. Income figures supported the above observa-

tions. Fisher households earned 50% more income than non-fishers, a difference that was due to earnings from fishing. Fishing was vital to the income of fisher households and, judging from the comparison with non-fishers, difficult to compensate for with other economic activities. Although non-fisher incomes were more evenly spread over different activities, their incomes were considerably lower.

Despite the relatively favourable position of fishers in their local communities, it is still possible for these communities near the coast to be poor, with income levels below those in rural areas elsewhere in Coast Province. This has, however, been shown not to be the case: the incidence of poverty among fishers was no higher than among the general rural population in Coast Province. Therefore, the view that fishers are destitute, among the 'poorest of the poor', are trapped in a hopeless situation and are desperate for other opportunities clearly does not apply here. The fishing sector is not an employer of last resort and income diversification is not a means to escape fishing but is rather an integral part of livelihood strategies. The other side of the coin is that non-fishers will be attracted to fishing in order to improve their livelihoods, and this is indeed happening with the entry into the sector of many Mijikenda fishers (Versleijen & Hoorweg 2006). Nevertheless, it must be realized that many fisher households live below the poverty line and, as such, are part of the region's general poverty problem.

Earners diversification resulted in substantially higher incomes while activity diversification added little but resulted mainly in changes in income composition (although the latter still had higher incomes than the non-fisher). Few fisher households (29%) live without diversification of any kind, which confirms the importance of this income strategy. Earner and activity diversification can be regarded as different strategies, each with its own advantages and disadvantages. Activity diversification means that the head can decide on how the income is used but the income is limited by what that one person can earn. It is reasonable to assume that frequency of activity diversification decreases with age whereas the frequency of earner diversification increases with age. Wives can start to earn an income when the older children are able to care for their younger siblings. At a later stage, children can also earn money. Earner diversification means that the household has more income but the head does not have to put in any more work. The disadvantage from his point of view is that he does not have sole control of the income (although the wives and other income earners probably think differently). Still, it is likely that the wife will spend most or all of her earnings on household necessities. As for older children, they will probably get married and, therefore, contribute earnings only for a limited number of years.



There is not one clear-cut livelihood strategy that is better than the others and the choices for or against diversification are complex. Fishers have to make a number of successive choices based on their personal circumstances and preferences. The first choice is whether to operate as a crew member, an independent fisherman or a boat captain. This choice depends on age, experience and personal initiative and has implications for possible income diversification. The second choice is whether to opt for income diversification or not, bearing in mind the extra effort that is needed and the changes in household relations that may result. It has to be realized that without diversification, more fisher households would sink deeper into poverty. For boat captains, it is better to concentrate on one activity, but for crew members it is better to diversify as they had the highest incomes.

Next, a choice has to be made between 'activity' diversification and 'earner' diversification (or both) but, again, much depends on the personal circumstances and experience of the individual fishers. Relevant factors include employment history, family stage, level of education, personal preferences and opportunities. The choice for activity diversification depends primarily on a person's level of education and personal preferences. Formal education may make it easier to find employment although its importance should not be overestimated as chance opportunities are perhaps more important. Earner diversification, on the other hand, is very much dependent on household stage (namely whether there are grown-up children in the household), household size and personal ideas about the role of women in society.

Many poverty alleviation programmes among fishers in developing countries over the past four decades have been based on the assumption that fishers are among the very poor (Béné 2004). Improving catches and offering alternative employment have been important elements in these approaches (Neiland 2004). The policy measures to combat existing poverty among fisher groups that are listed in the Poverty Reduction Strategy Paper of the Kenya Government (Kenya 2001) recommend improving infrastructure such as landing sites, access roads, potable water supplies, fishers' shacks and electricity connections. These measures are aimed primarily at strengthening the processing and marketing of fish and there is no mention of creating employment opportunities outside the fishing industry for this group. Income diversification is certainly a means of improving the situation of fisher households. However, if employment opportunities are to be actively stimulated by government measures, two aspects require careful consideration: type of employment and geographical distribution. Employment opportunities within the fishing industry are limited by current catch levels that, even in 1996, were already judged to be at maximum sustainable yields (McClanahan 1996). Employment opportunities outside the fishing industry will inevitably attract workers from outside the fishing community as

well. If new industries are situated near Mombasa they will not offer easy access for fishers living a long distance away. But if these new industries are in more remote areas and near the coast (to reach the fishers), then it is likely that outsiders will follow, seek accommodation locally and take up fishing for the extra income it provides. 'New' fishers usually fish near the coast around the coral reefs (Hoorweg *et al.* 2006) and this will most certainly increase pressure on this delicate part of the marine ecosystem, which is already under extreme pressure from various sides.

## References

- Allison, E.H. & F. Ellis 2001, 'The Livelihoods Approach and Management of Small-scale Fisheries', *Marine Policy* (25): 377-388.
- Béné, C. 2003, 'When Fishery Rhymes with Poverty: A First Step beyond the Old Paradigm on Poverty in Small-scale Fisheries', *World Development* 31 (6): 949-975.
- Béné, C. 2004, 'Poverty in Small-scale Fisheries: A Review and Some Further Thoughts', in: A.E. Neiland & C. Béné (eds), *Poverty and Small-scale Fisheries in West Africa*, Dordrecht: Kluwer, pp. 59-102.
- Ellis, F. 1999, *Rural Livelihood Diversity in Developing Countries: Evidence and Policy Implications*, Natural Resource Perspectives 40, London: Overseas Development Institute.
- Ellis, F. 2000, *Rural Livelihoods and Diversity in Developing Countries*, Oxford: Oxford University Press.
- Frazier, J.G. 1993, 'Dry Coastal Ecosystems of Kenya and Tanzania', in: E. v.d. Maarel (ed.), *Ecosystems of the World. Vol. 2B: Africa, America, Asia and Oceania*, Amsterdam: Elsevier, pp. 129-150.
- Glaesel, H. 1997, 'Fishers, Parks, and Power: The Socio-environmental Dimensions of Marine Resource Decline and Protection on the Kenya Coast', PhD Thesis, Madison: University of Wisconsin.
- Hoorweg, J. 1998, 'Introduction', in: J. Hoorweg (ed.), *Dunes, Groundwater, Mangroves and Birdlife in Coastal Kenya*, Coastal Ecology Series 4, Eldoret: Moi University, School of Environmental Studies.
- Hoorweg, J., A. Degen & B. Wangila 2003, 'Income Diversification and Resource Conservation among Artisanal Fishers at the Central Kenyan Coast', NIRP End Report, Leiden: African Studies Centre.
- Hoorweg, J., D. Foeken & R. Obudho 2000, 'Conclusion: Culture, Resources and Development in the Kenya Coast', in: J. Hoorweg, D. Foeken & R. Obudho (eds), *Kenya Coast Handbook: Culture, Resources and Development in the East African Littoral*, Hamburg: Lit Verlag, pp. 393-408.
- Hoorweg, J., N. Versleijen, B. Wangila & A. Degen 2006, 'Income Diversification and Fishing Practices among Artisanal Fishers', Paper presented at Coastal Ecology Conference, Mombasa, 29-30 May.
- Hoorweg, J., B. Wangila & A. Degen forthcoming, 'Artisanal Fishers on the Kenyan Coast: Household Survival and Resource Conservation', Leiden: African Studies Centre.

- Ikiara, G.K. 2000, 'Employment', in: J. Hoorweg, D. Foeken & R. Obudho (eds), *Kenya Coast Handbook: Culture, Resources and Development in the East African Littoral*, Hamburg: Lit Verlag, pp. 237-246.
- Kenya 2001, *Poverty Reduction Strategy Paper for the Period 2001-2004*, Nairobi: Republic of Kenya, Ministry of Finance and Planning.
- Kenya 2003, *Statistical Abstract 2003*, Nairobi: Republic of Kenya: Central Bureau of Statistics.
- Masai, W.S. 2000, 'Industrialization', in J. Hoorweg, D. Foeken & R. Obudho (eds), *Kenya Coast Handbook: Culture, Resources and Development in the East African Littoral*, Hamburg: Lit Verlag, pp. 211-221.
- McClanahan, T.R. 1996, 'Oceanic Ecosystems and Pelagic Fisheries', in: T.R. McClanahan & T.P. Young (eds), *East African Ecosystems and their Conservation*, New York: Oxford University Press, pp. 39-66.
- McClanahan, T.R., S. Mwangi & N.A. Muthiga 2005, 'Management of the Kenyan Coast', *Ocean & Coastal Management* (48): 901-931.
- MENR 1994, *The Kenya National Environment Action Plan*, Nairobi: Ministry of Environment and Natural Resources.
- Middleton, J. 2000. 'The Peoples', in: J. Hoorweg, D. Foeken & R. Obudho (eds), *Kenya Coast Handbook: Culture, Resources and Development in the East African Littoral*, Hamburg: Lit Verlag, pp. 101-114.
- Mwadime, R. 1996, *Non-farm Employment in Rural Kenya: Micro-mechanisms Influencing Food and Nutrition of Farming Households*, Wageningen: Wageningen University.
- Neiland, A.E. 2004, 'Fisheries Development, Poverty Alleviation and Small-scale Fisheries: A Review of Policy and Performance in Developing Countries since 1950', in: A.E. Neiland & C. Béné (eds), *Poverty and Small-scale Fisheries in West Africa*, Dordrecht: Kluwer, pp. 189-208.
- Obura, D.O. 2001, 'Kenya', *Marine Pollution Bulletin*. 42 (12): 1264-1278.
- UNDP 2004, *Human Development Report 2004*, New York: Oxford University Press/United Nations Development Programme.
- UNEP 1998, *Eastern Africa Atlas of Coastal Resources 1: Kenya*, Nairobi: United Nations Environment Programme.
- Versleijen, N. & J. Hoorweg 2006, 'A New Generation of Fishermen: Income Diversification and Marine Resource Degradation', Paper presented at Conference on the Maritime Heritage and Cultures of the Western Indian Ocean in Comparative Perspective, Zanzibar, 11-13 July.
- Willman, R. 2004, 'Poverty in Coastal Fishing Communities', in: A.E. Neiland & C. Béné (eds), *Poverty and Small-scale Fisheries in West Africa*, Dordrecht: Kluwer, pp. 245-252.
- Woodhouse, P. 2002, *Natural Resource Management and Chronic Poverty in Sub-Saharan Africa: An Overview Paper*, CPRC Working Paper 14, Manchester: University of Manchester, Institute for Development, Policy and Management.

## The MDG on poverty and hunger: How reliable are the hunger estimates?

Wijnand Klaver & Maarten Nubé

*Two hunger related indicators are used for tracking progress towards MDG-1. The prevalence of people with inadequate food intake (undernourishment) is based on national food statistics, which are not very reliable in Sub-Saharan Africa. The other indicator (prevalence of underweight among underfives, based on anthropometric surveys) appears to be more reliable. The measurement of height in addition to weight allows a more refined classification of anthropometric failure. A specially designed cross-tabulation (called 'Anthro Table') facilitates the inspection of the resulting interconnected prevalence data. An example from Kenya confirms the reliability of underweight as a sound overall indicator of child growth, while the prevalence of stunting (low height) remains a useful additional indicator that can help attribute any trends in underweight to chronic and/or acute undernutrition.*

### Introduction

The first of the eight Millennium Development Goals (MDG) is to eradicate extreme poverty and hunger, with one of the targets being to halve the proportion of people suffering from hunger by 2015 compared to the 1990 figure.<sup>1</sup> To measure progress, two indicators have been selected by the United Nations: the proportion of children under five whose weight-for-age is below the WHO

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<sup>1</sup> The other targets of MDG-1 are to 'Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day' and to 'Achieve full and productive employment and decent work for all, including women and young people' (United Nations Statistics Division 2008).

cut-off point for undernutrition,<sup>2</sup> and the proportion of the population whose food consumption is below minimum dietary energy requirements. In this chapter, the first is referred to as ‘prevalence<sup>3</sup> of underweight in children’ or ‘prevalence of underweight’ and the second is referred to as ‘prevalence of undernourishment among the population’ or ‘prevalence of undernourishment’.

The first part of the chapter questions whether these two indicators are indeed measurable and reliable, and how they relate to each other, while the second takes a closer look at the first of the two indicators and considers how weight-for-age combines the effects of two distinct dimensions of child growth: growth in body stature with age, and fluctuations in body proportions. Each of these dimensions has its own indicator, namely the number of children with a height too low for their age, and the proportion of children with a weight below what would be expected for their height. Although the chapter focuses on the merits of these indicators for monitoring purposes, their relationship with indicators for other development targets and background conditions over time is an important issue. The monitoring of MDG targets should be combined with interpreting national trends appropriately, including attributing changes to likely explanatory factors such as the impact of different policies, economic opportunities or constraints, and natural or manmade changes or disasters. This chapter takes a first step towards developing new reporting tools to allow a better analysis of the ‘prevalence of underweight’ indicator.

### Underweight vs. undernourishment: Measurement issues

The hunger-related target of MDG-1 is being monitored using two indicators. The first is derived from anthropometric surveys among children under five and the second is based on statistics about food availability for human consumption. The chapter starts with information on the relationship between the two indicators. This is followed by a brief overview of the procedure used to estimate the prevalence of undernourishment among the population and an assessment of the reliability of the prevalence of undernutrition using the results of successive anthropometric surveys that were undertaken over a relatively short period of time in the same country. Information is presented on the degree of stability of

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<sup>2</sup> The cut-off point used internationally is  $-2$  Z-scores below the reference population median.

<sup>3</sup> A ‘prevalence rate’ (in %) describes the percentage of people in a given area who are suffering from a condition at a particular time. In epidemiology, this rate is distinguished from the ‘incidence rate’, which is the percentage of people in a given area who become ill in a certain period (e.g. one year). The monitoring of MDG-1 relies on prevalence percentages and not on incidence rates.

the results at a national level and the within-country distribution of under-nutrition prevalence.

*The relationship between underweight and undernourishment*

The two indicators – prevalence of underweight and prevalence of undernourishment – are generally seen to allow a monitoring of trends concerning the occurrence of hunger. As they measure different aspects of nutrition (children's weight versus household per capita food consumption), the two indicators cannot be expected to give identical results. However, a positive correlation between the two is expected, with a decrease in the prevalence of undernourishment accompanying a decrease in the prevalence of underweight in children, and vice versa.

Figure 11.1 shows the patterns of change in underweight and undernourishment in Sri Lanka.<sup>4</sup> Between 1990 and 2002 there was a continuous decline in the prevalence of underweight among children and the prevalence of undernourishment in the general population. The two trend lines are similar in terms of slope but differ in level because the upper line refers to a percentage of children and the lower line to a percentage of the population.

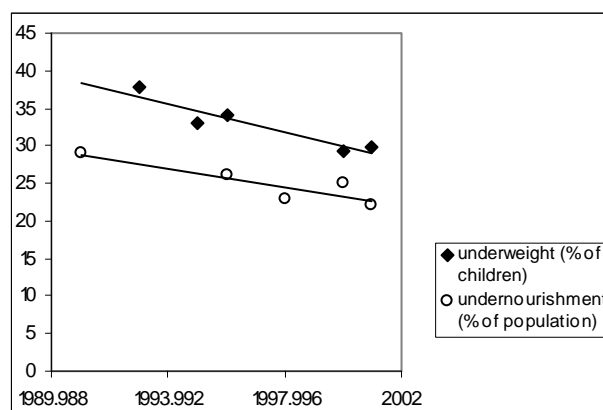


Figure 11.1 Trends in prevalence of underweight and undernourishment in Sri Lanka, 1990-2002

Source: FAO (1999-2005), WHO (2006a)

<sup>4</sup> The example given is of an Asian country, because production estimates for the staple food are probably more reliable there than in Sub-Saharan Africa. In Sri Lanka the staple food is rice. As most rice is commercially traded, it can be better estimated than production estimates for home-grown/consumed food crops such as cassava in SSA (see below).

However, a more systematic analysis of the combined data available at a national level on prevalence rates of underweight and national prevalence rates of undernourishment reveals that the clear positive relationship shown for Sri Lanka is exceptional. Figure 11.2 shows the results of comparing the changes in prevalence rates of underweight and undernourishment for 27 African countries.<sup>5</sup> For most countries, these changes were noted over a five to ten year period. If there had been a strong positive correlation between the two indicators, Figure 11.2 would show a concentration of data points on or near a line running from the bottom left to the upper right quadrants. However, the results reveal a wide scattering of data, indicating that the relationship between change in underweight and that in undernourishment is only weak. The changes in prevalence of underweight and undernourishment for eight countries surprisingly run in opposite directions (data points in the upper left and lower right quadrants). For individual countries, the direction and degree of change of the two MDG-1 indicators on hunger are far from similar and show poor correlation ( $P=0.175$ , Fisher's Exact test). This casts doubt on the suitability and reliability of at least one, if not both, indicators. Although it is true that underweight is not only caused by inadequate food consumption but also by inadequate healthcare and caring practices, it is unlikely that the influence of such factors can fully explain the poor association between undernourishment and underweight.

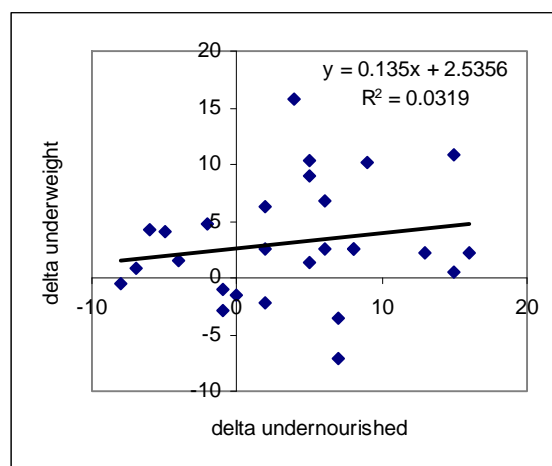


Figure 11.2 Changes over time in prevalence (%) of underweight and prevalence (%) of undernourishment in 27 African countries (see Appendix 1 for national data)

<sup>5</sup> The full data set on which Figure 11.2 is based is given in Appendix 1.

*The prevalence of undernourishment*

Methodology to estimate the prevalence of hunger on the basis of food availability and consumption has been developed by the FAO and consists of three main components: an estimate of the national availability of food for human consumption; an estimate of the within-country distribution of food consumption; and the setting of a minimum level of food energy requirements (in kcal).<sup>6</sup>

The method is in principle well designed but also complex and highly demanding of data. One of the greatest problems is that the data required are either poorly estimated or not available at all. For this reason, this method has frequently been criticized over the years (see, for example, Svedberg 1991, 1999, 2000). Without discussing all the steps in detail and the data required to arrive at an estimate of the prevalence of undernourishment, one exception is made that relates to the first step in the procedure. This is the estimation of a country's average per capita food consumption based on the food balance sheet, which is constructed following a so-called accounting method that makes estimates based on food production (marketed and subsistence), food imports and changes in stocks. All forms of non-food utilization are then subtracted from the total quantity of food available. This includes the usage of food for animal feed and as seed, food losses during transport and processing, and food exports. The balance of all these is considered to represent food availability for consumption by the population of the country concerned at retail level. The food balance approach leads to an indirect estimate of actual aggregate food consumption and does not account for any food losses between retail and household levels, nor within households.

Table 11.1 shows the difficulties that can be encountered when constructing a food balance sheet and gives figures on the production and consumption of cassava in various African countries that were selected for their relatively high levels of cassava production and consumption. The table shows that between 0% and 45% of national cassava production in the eight countries selected is reportedly used as feed, with estimates of waste varying between 5% and 35%. The resulting percentages available for human consumption in these countries vary from 45% in Uganda to 95% in Zambia. The percentages used can be seen to be rounded figures (with a precision of 5 to 10%). This reflects their very character: the percentages are generally only rough 'guesstimates'. This means that, apart from errors in absolute estimates of root crop production, inaccuracies in the above estimates of food utilization for other purposes than human consumption have far-reaching consequences for national-level estimates of total energy consumption. In turn, errors in the estimates of total per capita food consumption strongly influence estimates of the prevalence of undernourish-

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<sup>6</sup> One kilocalorie (kcal) corresponds to 4.814 kiloJoules (kJ).



ment. These, and various other problems associated with the FAO methodology for estimating hunger in the form of undernourishment (e.g. assumptions about the distribution of national food supplies among the population utilizing information on income distribution, and assumptions underlying the definition of inadequate energy consumption), cast doubt on the reliability and usefulness of the undernourishment indicator when assessing progress in the MDG-1's hunger-related target.

*Table 11.1* Estimates of food and non-food utilization of cassava in selected Sub-Saharan African countries, 1999-2001

	% of production used as feed	% of production lost (waste)	% of production available as food	Food energy contributed by cassava in kcal/capita/day
Angola	25	5	70	644
Congo (DRC)	5	5	90	872
Ghana	15	35	50	645
Mozambique	10	15	75	637
Nigeria	25	30	45	277
Togo	0	15	85	386
Uganda	45	10	45	295
Zambia	0	5	95	251

Source: FAO Food Balance Sheets (1999-2001)

#### *The prevalence of underweight and of stunting among children*

The main question here is to what extent information based on anthropometric surveys among young children provides reliable information on the actual prevalence rates of undernutrition, and therefore whether underweight prevalence can be considered an appropriate indicator in monitoring MDG-1. Unlike undernourishment, the measurement of underweight in children is relatively straightforward and involves collecting anthropometric information (age, sex and body weight) from a sample of children.

Apart from the obvious requirement that anthropometric measurements are made and collected correctly, the most important condition for estimating a national-level prevalence rate of underweight is the representativeness of the sample. An empirical approach to assess the apparent representativeness of commonly used samples in nutrition surveys is the comparison of the results of two independent surveys in the same country or region that have been undertaken relatively close together. Surveys held at the same time in the same year

are ideal. The following analysis uses the main determining factor of underweight, i.e. low height-for-age (stunting or chronic undernutrition), because it is generally held to be less affected by short-term fluctuations than low weight-for-height (see Box 11.1). In standard nutrition surveys, the age ranges covered are either children under five or children less than three years of age. Thus, when the time span between two surveys in the same area is no more than two

#### Box 11.1 Classifying growth in young children

When a child is not growing well, s/he lags behind in the development of body dimensions. The growth of a young child can thus be judged from the increase in his/her body weight and/or height over time. The resulting weight or height at any time is referred to as 'attained growth'. Given the child's age and sex, weight and height are converted into indices of attained growth: *weight-for-age* (WA) and *height-for-age* (HA) respectively. Body proportions are captured by a third index: *weight-for-height* (WH). When working out each of these indices, the growing child's attained weight or height is compared with the expected values in a population dataset that is recommended for international reference purposes. On the basis of studies among a reference population in an environment where undernutrition has not been a public-health problem, experts have established tables and curves to describe the recommended distribution of growth values for reference purposes. The World Health Organization has established reference data for international use.<sup>7</sup> Some countries use reference data based on their own research or borrowed from other sources.

WA is a composite index that combines the effects of two different biological processes: growth in body stature (measured by HA) and fluctuations in body 'fill' (measured by WH). A child can, therefore, be underweight because s/he is either too short for his/her age or too thin for his/her height or a combination of both. WA alone cannot distinguish between the two processes and needs to be complemented by information on its components (HA and WH). Body stature<sup>8</sup> at a given age is the result of the accumulation of linear growth since the child was conceived and a measure of long-term body growth. A below-normal value of HA indicates chronic undernutrition (*stunting*); this is the result of prolonged food deprivation and/or disease or illness. The other dimension of child growth is represented by WH. A below-normal index indicates acute undernutrition (*wasting*) and is attributed to concurrent or recent episodes of food deprivation and/or illness.

<sup>7</sup> In 1983, the World Health Organization adopted international reference values for weight-for-age, height-for-age and weight-for-height (WHO 1983) based on anthropometric data collected in the United States by the National Centre for Health Statistics (NCHS). In 2006 the WHO published new growth standards for international use (WHO 2006b; WHO 2007).

<sup>8</sup> The method of measuring the body stature of a child depends on its ability to stand. For children under 2 years of age, stature is measured with the child lying down. The resulting measurement is referred to as 'body length'. Children over two are measured standing upright and the result is referred to as 'height'. The effects of gravity make the latter measurement about 1 cm less than the former. There are separate reference tables for length and height. The term 'height' is used in this chapter to denote length and height.

or three years apart, part of the targeted population segment is represented in both surveys. It is partially for this reason that, in particular for the anthropometric height-for-age indicator, differences between successive surveys are expected to be relatively modest. Only over longer periods of time are significant changes and, hopefully, a reduction in undernutrition prevalence rates expected to occur.

Figure 11.3 shows the stunting prevalences for twelve Asian countries. The time span between the successive surveys is at most three years and for most countries only one or two years. Results confirm the expectation of, at most, moderate changes in stunting prevalence between the two successive surveys. The biggest difference is observed for Yemen with a difference in prevalence between the two surveys of approximately ten percentage points. The information presented in Figure 11.3 supports using anthropometry for monitoring undernutrition. It is also important to note that for some of the Asian countries

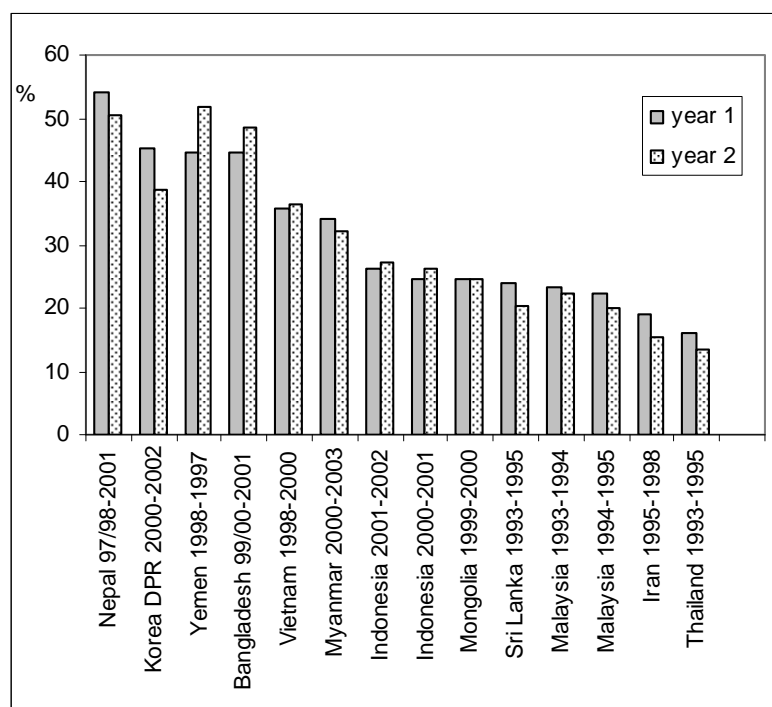


Figure 11.3 Prevalence rates of chronic undernutrition (low height-for-age) between two successive surveys in 12 Asian countries (year 1 = earlier year, year 2 = later year)

Source: DHS (2007), WHO (2006a) (see Appendix 2)

Note: Prevalence rates of low height-for-age were not available for Malaysia and Indonesia and the rates shown are for weight-for-age.

the sample sizes were quite large (see Appendix 2), therefore increasing the likelihood that the sample estimates would be close to the true population values for the respective countries.

Figure 11.4 provides a comparable analysis for nineteen African countries. The results concerning stunting in most of these countries were of a similar magnitude, although the differences were larger than in the Asian survey for several countries. The results support using the anthropometric indicator to assess undernutrition but in comparison with Asian countries, data reliability is probably somewhat weaker and careful use of the information is required. One of the reasons for the large differences between some of the surveys could be that sample sizes in nutrition surveys in Sub-Saharan Africa are smaller than sample sizes in similar surveys in Asia (Appendices 2 and 3).

The present assessment of the reliability of the results of anthropometric surveys by comparing two successive surveys should be considered an explorative exercise. When two successive surveys yield markedly different results, this could be caused either by a real change in nutritional conditions or by poor and/or non-representative sampling frames. Similarly, when two successive surveys give a similar anthropometric outcome, this is not proof that

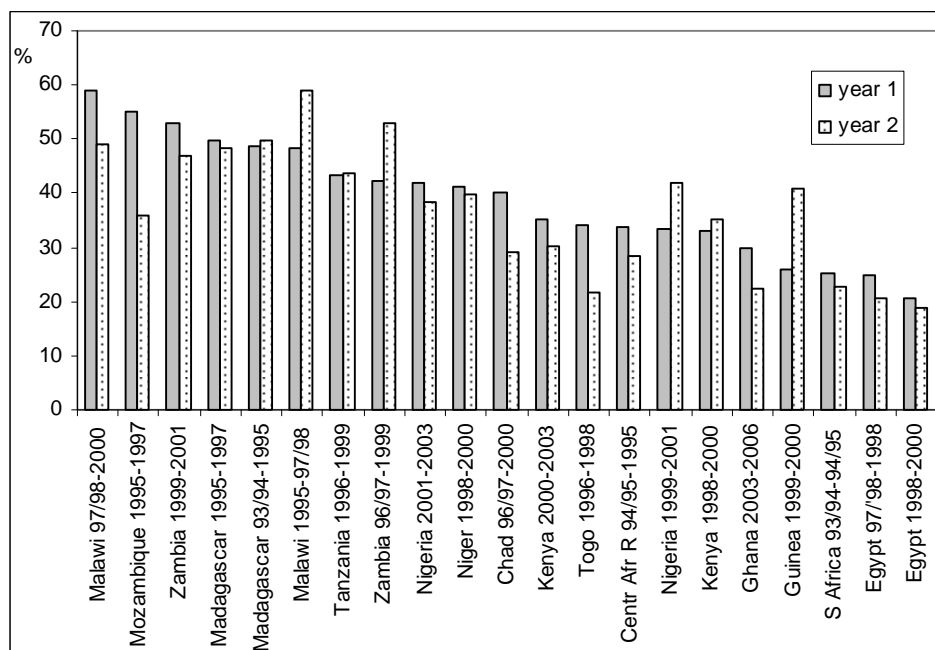


Figure 11.4 Prevalence rates of chronic undernutrition (low height-for-age) between two successive surveys in 19 African countries

Source: DHS (2007), WHO (2006a) (see Appendix 3)

representative sampling has occurred. Yet when for a large number of countries, such as those presented in Figures 11.3 and 11.4, two successive surveys give similar results, this adds to the credibility of the results.

For a large number of Sub-Saharan African countries, the within-country distribution of stunting was analyzed. Figure 11.5 provides results from three successive anthropometric surveys at province or district level for Ghana and Malawi. The two figures illustrate the strengths and limitations of the currently available anthropometric data on undernutrition.

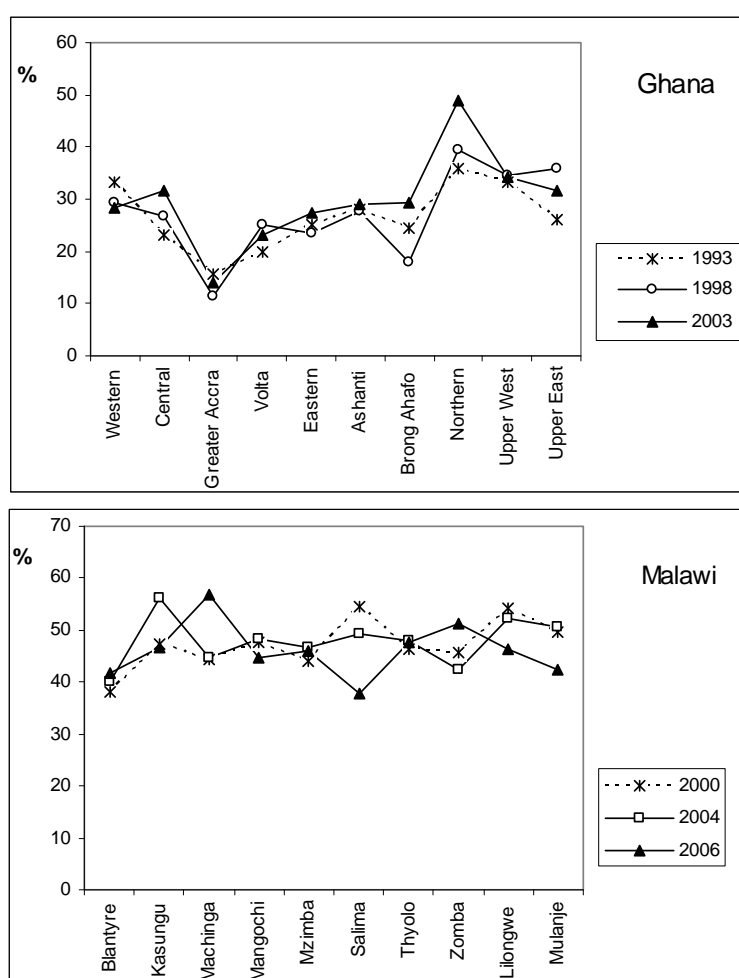


Figure 11.5 Within-country distribution of low height-for-age in children in successive surveys in Ghana (1993, 1998, 2003) and Malawi (2000, 2004, 2006)

Source: DHS (2007)

Figure 11.5 reveals a stable pattern of undernutrition for Ghana over a period of ten years that is prevalent in the country's various districts, while undernutrition prevalence in Ghana is highest in the northern part of the country and lowest in the Greater Accra region. The pattern of within-country undernutrition in Malawi is less clear. Whether these differences reflect true changes in nutritional conditions or are caused by a non-representativeness of the samples cannot be determined and further information is needed for a meaningful interpretation of the results.

The indicator of underweight prevalence has a good degree of reliability when it comes to monitoring MDG-1 on halving hunger and undernutrition. Data requirements are limited but caution should be exercised in interpreting the data with respect to the representativeness of the results at disaggregated levels, or when sample sizes are relatively small. The undernourishment indicator derived from food availability and distribution is data demanding, subject to wide margins of error and appears to be less suitable for monitoring progress towards achieving MDG-1's target of halving hunger between 1990 and 2015.

### The indicator of underweight dissected

As height-for-age indicates the long term process of growth, perhaps prevalence of stunting would be a better indicator for monitoring MDG-1 than the prevalence of underweight. The reason is that the wasting component, which is implicit in underweight, might dilute or partially mask the effects of stunting. To investigate this hypothesis, the indicator of underweight now comes under the microscope for dissection.

#### *Weight-for-age and its components*

As mentioned in Box 11.1, weight-for-age (WA) is the composite result of weight-for-height (WH) and height-for-age (HA). The following schematic notation<sup>9</sup> illustrates the logic of this interconnection:

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<sup>9</sup> In fact, the anthropometric indices are not obtained by a simple arithmetical division of W by A (or H) and of H by A, respectively, but by a much more complex procedure involving the expression of an observed W or H in terms of its position compared to reference values. The resulting anthropometric indices are expressed as Z-score values: WAZ, WHZ and HAZ. The above notation is just for illustrative purposes. The true WAZ is not simply obtained by multiplying WHZ and HAZ but is calculated in its own right. A Z-score value indicates how far a child's observed value is above or below the median value of the international reference data for children of the same age (in the case of WA and HA) or height (in the case of WH). The distance of the observed value from the median reference value is expressed in terms of standard deviation units of the same reference population. The result has no measurement

$$W/A \approx W/H * H/A$$

For a group or sample of children, the frequency of individual results is expressed in terms of prevalence percentages: (i) the prevalence of underweight (i.e. children with a below-normal weight for their age), (ii) the prevalence of stunting (i.e. children with a height below normal for their age), and (iii) the prevalence of wasting (i.e. children with a below-normal weight for their height). The latter two partly overlap and some children are both wasted and stunted. Waterlow (1973) proposed a two-way cross-classification of the dichotomy according to WH and the dichotomy according to HA.

Table 11.2a shows prevalence percentages for Kenya's recent Demographic and Health Survey (DHS). In this example, 30.8% of the under-fives were stunted and 5.7% were wasted, but there was an overlap of 1.8% (wasted and stunted) such that the prevalence of children with normal height-for-age and normal weight-for-height was 65.3%. The much higher prevalence of stunting compared to the prevalence of wasting is a normal finding in nutrition surveys:

Table 11.2a Example of Waterlow's anthropometric classification of children

Waterlow's classification		
Anthropometric category	Wasted (WHZ<-2.0)	Non-wasted (WHZ>=-2.0)
Non-stunted (HAZ>=-2.0)	<b>Wasted, non-stunted:</b> 190 (3.9%)	<b>'Normal':*</b> 3190 (65.3%)
Stunted (HAZ<-2.0)	<b>Wasted + stunted:</b> 88 (1.8%)	<b>Stunted, non-wasted:</b> 1417 (29.0%)

Source of prevalence data: Kenya Demographic and Health Survey (2003) (Measure DHS+ 2004).

Notes: The nationally representative sample survey covered 4885 under-fives from 400 sample points (clusters) in rural and urban areas of Kenya. To obtain the numbers in the above table, cases were weighted using the sampling weights in the SPSS data file to correct for any differences in sampling probabilities. The anthropometric categories are defined by combinations of HAZ and WHZ above or below  $Z = -2$ . The figures refer to the number of children in that category and the percentage of all children is shown in brackets. Formatting: The shading is an indication of the severity of the condition: light shading is for either wasted or stunted, and darker shading is for both wasted and stunted.

\* This group may include children with values above the normal range ( $Z$ -scores  $> +2.0$ ), which may represent overweight or abnormal height. When the term 'normal' is used in this chapter, it should be understood as meaning 'not sub-normal'. In Waterlow's classification, 'normal' means neither wasted nor stunted.

units, as it is obtained as cm/cm or as kg/kg. According to statistical theory, the 'range of normal variation' of  $Z$ -score values is between  $-2.0$  and  $+2.0$ .

the former is the accumulated result of a chronic process or trend, while the latter can be seen as the result of variation in this trend. Under non-emergency conditions, the prevalence of wasting is generally of a much smaller magnitude than the prevalence of stunting.

The mean Z-score values for the four categories are shown in Table 11.2b. The mean HAZ of the two categories in each row of Table 11.2a can be verified, and although not exactly the same, they are quite close. In the same vein, the mean WHZ of the two categories in each column of Table 11.2a are almost the same. Interestingly, the mean WAZ in Table 11.2b can be seen to exhibit three instead of two levels: normal children (-0.4), those with only one failure (around -2) and those with a double failure (-3.6). This is consistent with the intensity of the shading shown in Table 11.2a.

Table 11.2b Mean Z-score values of Waterlow's four nutritional status categories

	mean HAZ	mean WHZ	mean WAZ
Normal	-0.56	-0.03	-0.40
Wasted, non-stunted	0.05	-2.65	-2.10
Stunted, non-wasted	-2.90	-0.12	-1.85
Wasted and stunted	-3.08	-2.53	-3.64

Waterlow's classification invites questions it cannot answer about underweight children. Are all the wasted children underweight? Are all the stunted children underweight? And can there be underweight children who are not wasted or stunted? A more refined classification of undernutrition has recently been proposed by Peter Svedberg (2000), who extended Waterlow's classification with a third dichotomy based on WAZ. He proposed six different combinations of the three anthropometric indicators, which he labelled A to F. Nandy *et al.* (2005) applied this classification to survey data from India and rediscovered<sup>10</sup> one combination that Svedberg did not mention (and which they labelled group Y).<sup>11</sup> There are, therefore, seven possible categories based on the combinations of the three indicators (see Table 11.3).<sup>12</sup> For ease of reference,

<sup>10</sup> In fact, this classification was given in WHO (1983).

<sup>11</sup> This is the combination of being (slightly) underweight but not wasted (although almost) and not stunted (although almost).

<sup>12</sup> Cross-tabulating three dichotomies produces eight (=2\*2\*2) combinations. A theoretical eighth combination ("wasted and stunted, but not underweight": WS) is empty, as the anthropometric values that should give rise to that possibility cannot



group labels are proposed here that are abbreviations of the category descriptions. This has the added advantage that the number of digits in a label indicates whether one is dealing with a single, double or triple failure.

Svedberg further proposed combining the prevalences of the various possible combinations of wasting and/or stunting and/or underweight into one ‘composite index of anthropometric failure’ (CIAF), which is equal to 100% minus the prevalence of the group without failure (i.e. 100% minus Svedberg’s group A, labelled N in this chapter). The CIAF is always a higher figure than each of the prevalences of wasting, stunting or underweight.

*A new Anthro Table for Svedberg’s classification of anthropometric failure*

Svedberg’s classification is essentially an extension of Waterlow’s classification, so we propose building a table in analogy with Table 11.2a but with the more refined classification in seven categories. This disaggregation implies that the mean HAZ and WHZ are no longer similar for groups within the same row or column. Therefore the result of each of the seven categories in Table 11.4 is given at the cross-section of its own row and column.

The following analysis has again been done with the data set from Kenya’s 2003 Demographic and Health Survey (Measure DHS+, 2004). The total number of underweight children (see the figures in bold) was 985 (20.1%) and the total non-underweight was 3,900 (79.9%). Table 11.4 is the Anthro Table that represents the frequency distribution of the seven anthropometric categories in its two-way (bivariate) layout.

The columns are arranged from low to high mean WHZ values and the rows from high to low mean HAZ values, as in a two-way graph.<sup>13</sup> The mean WHZ values are shown at the top of the columns and the mean HAZ values at the left of the rows. Categories that are on the same diagonal (W and S; WU and SU) have almost the same mean WAZ values. Their average is shown in the lower right margins of Table 11.4; they should be read diagonally, as indicated by the oblique dashes. The mean WAZ values of the seven categories can be seen to follow a gradient perpendicular to the diagonal shown: highest (-0.3) for N and lowest (-3.6) for WSU. This elegant property of the Anthro Table is explained by the strong interrelationship between the three anthropometric indices discussed earlier. We propose calling a table with this special layout an

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co-exist, at least not with the standard cut-off values of -2. As the cut-off values of WHZ and HAZ are relaxed, while keeping WAZ at -2.0, a point may be reached where group U becomes impossible and a new group WS will appear.

<sup>13</sup> Admittedly, the distances between the mean Z-scores of the rows and columns are not constant. In this respect, the Anthro Table is a schematic visualization and not a precise graph.

Table 11.3 Svedberg's (2000) classification of children by categories of anthropometric normality/failure, expanded by Nandy *et al.* (2005)

Group name (Svedberg, expanded by Nandy <i>et al.</i> )	New proposed group label (this paper)	Description	Wasting	Stunting	Underweight
A	N	<b>No failure:</b> Children whose height and weight are above the age-specific minimal norm (i.e. above $-2$ Z-scores) and are not suffering from any anthropometric failure	No	No	No
B	W	<b>Wasting only:</b> Children with acceptable weight and height-for-their age but who have sub-normal weight-for-height	Yes	No	No
C	WU	<b>Wasting and underweight:</b> Children with acceptable height but whose weight-for-age and weight-for-height are too low	Yes	No	Yes
D	WSU	<b>Wasting, stunting and underweight:</b> Children who are suffering from anthropometric failure in all three measurements	Yes	Yes	Yes
E	SU	<b>Stunting and underweight:</b> Children with low weight-for-age and low height-for-age but with acceptable weight-for-height	No	Yes	Yes
F	S	<b>Stunting only:</b> Children with low height-for-age but who have an acceptable weight, both for their age and their (short) height	No	Yes	No
Y	U	<b>Underweight only:</b> Children who are only underweight	No	No	Yes
Impossible	Impossible	<b>Wasting and stunting, but not underweight:</b>	Yes	Yes	No

Table 11.4 Anthro Table of children and prevalence % by anthropometric category

Waterlow categories		← wasted			non-wasted →										
Svedberg/ Nandy's categories		WU	WSU	W	U	SU	N	S							
mean WHZ		-2.8	-2.5	-2.4	-1.6	-0.8	0.0	0.5							
mean HAZ															
→ non-stunted ↑	W								1.4						
	N								-0.5					3048 62.4%	
	WU								-0.7	<b>121</b> <b>2.5%</b>					
	U	-1.6			<b>142</b> <b>2.9%</b>										
	S	-2.6						783 16%							
← stunted ↓	WSU	-3.1	<b>88</b> <b>1.8%</b>												
	SU	-3.2				<b>634</b> <b>13%</b>									
mean WAZ					-3.6		-2.6	-2.2							
					← underweight										

Source of prevalence data: Kenya Demographic and Health Survey (2003) (Measure DHS+ 2004).

Legend: The anthropometric categories are defined by combinations of HAZ, WAZ and WHZ above or below  $Z=-2$ . (For the meaning of the abbreviations, see Table 3.) Entries are arranged according to the category's mean HAZ by mean WHZ values, as indicated in the margins.

Formatting: The shading indicates the four categories of Waterlow's classification: light shading is for either wasted or stunted (disregarding underweight) and darker shading for both wasted and stunted (and inherently underweight). Numbers and prevalence percentages of children who are underweight (only or in any combination) are in bold. The broken dashed line separates the combinations with normal weight-for-age from the combinations with underweight. As such, this line suggests combinations of WHZ and HAZ that have the same WAZ of -2. Underweight increases if one moves through the table from the upper right to the lower left-hand corner in a direction more or less perpendicular to the broken dashed line.

Anthro Table. In such a table it is possible to indicate schematically where the dividing line between underweight and normal weight would run if it were a graph (i.e. at  $WAZ=-2.0$ ). This line runs diagonally through the Anthro Table (see the line with broken dashes that runs from the upper left to the lower right corner of Table 11.4).

The 88 children in the WSU category (with the darkest shading) in Table 11.4 are the same as the 88 children labelled 'wasted + stunted' in Waterlow's classification (Table 11.2a). This is because any child who is both wasted and stunted is also necessarily underweight (see Footnote 12). However, the reverse is not true: a child who is neither wasted nor stunted does not necessarily have a normal WA. In fact, the cut-off line for underweight (see the line with broken dashes) passes through the quadrant of Waterlow's 'normal' children and carves out a small percentage of children (here 2.9%) who are 'underweight only' (U). The average WAZ value of the U category is somewhat higher than the WAZ values of the WU and SU categories but lower than for N, which is consistent with its position in the Anthro Table.

In Table 11.4 it can be seen how the usual three (one-dimensional) indicators for undernutrition are related to Svedberg's CIAF (see above). Its prevalence in this example from Kenya is  $100-62.4 = 37.6\%$ . The indicator underweight ( $WAZ<-2.0$ ; here: 20.2% of the children) unfortunately 'misses' the 16% of the children belonging to category S and the 1.4% belonging to category W, but has the merit of including 2.9% of the children (U) that are missed in Waterlow's classification. The combination of the wasting and stunting indicators (here: 34.7% of the children) misses category U but does include W among the wasted and S among the stunted. The stunting indicator ( $HAZ<-2.0$ ; here: 30.8%) also misses the U category (2.9%) and is 'taunted' with the 1.8% of the children who are not only stunted but also wasted. The wasting indicator ( $WHZ<-2.0$ ; here: 5.7%) misses the U category (2.9%) and includes the 1.8% of the children who are not only wasted but also stunted.

If the CIAF were considered the best indicator of the true prevalence of child undernutrition because it includes all forms of anthropometric failure (here 37.6%), Waterlow's classification would be a good second (here 34.7%), followed by stunting (here 30.8%), underweight (here 20.2%) and lastly wasting (here 5.7%). If the intention is to have the highest prevalence figure by not missing categories, their relative measure of success can indeed be judged from the above ranking order. However, this judgement in a way is not fair: wasting as an indicator of acute conditions is by its very nature usually a much more modest percentage than stunting. In this survey in Kenya, the prevalence of underweight is lower than the prevalence of stunting because the prevalence of wasting is relatively low.

A better criterion to judge the appropriateness of an indicator for monitoring purposes is how it reacts to change. One could say that using a composite index like the CIAF or the combination of wasting and stunting (or underweight for that matter) as an indicator would be more acceptable as wasting and stunting behave more similarly in terms of response to causal factors or of association with outcomes concerning health and performance. On the other hand, the more wasting and stunting behave differently, the more reason there would be to promote either of them in their own right as an overall indicator. Since stunting as a measure of chronic conditions is considered to be a better indicator of poverty and of the effect of sustainable actions to alleviate poverty, current consensus goes in the direction of promoting stunting as the preferred indicator for monitoring the progress of MDG-1 (SCN 2008).

#### *Using the Anthro Table to investigate other factors*

To address the above question, the differences in the seven anthropometric categories were investigated in terms of their score or performance on related factors, such as (i) possible causes or (ii) possible outcomes. A way of studying the association of child growth with another factor is to indicate the value of that factor for each of the seven anthropometric categories. Nandy *et al.* (2005) analyzed data from India and have provided graphs in which the X axis has the seven anthropometric categories arranged according to the number of anthropometric failures (N: none; S, U and W: one, SU and WU: two; WSU: three). The Y axis shows the average value of the factor investigated for the children in each category.

A similar analysis was done for this chapter using the DHS Kenya 2003 data set. In addition to a one-dimensional layout of the seven categories (as in the graphs by Nandy *et al.*), the two-dimensional character of the seven anthropometric categories is accounted for by presenting the results of the association analysis in the form of an Anthro Table.

The following sections give the results of two applications of the Anthro Table in investigating the association of anthropometric failure with other variables, i.e. poverty (as an example of a possible cause) and diarrhoea (as an example of a possible consequence).

#### *Anthropometric failure and poverty*

A factor that is one of the basic causes of undernutrition was analyzed. The Kenya DHS 2003 data set contains a wealth index factor Z-score for each child based on a number of household goods and assets. The mean of the wealth index scores is close to zero since the index is standardized for households to produce Z-scores (Rutstein & Johnson 2004). The Kenya DHS 2003 data set has a categorical variable derived from the wealth index, which divides the

population approximately in quintiles (20% bands of the frequency distribution of ordered values). The quintiles are labelled from 'poorest' to 'richest' but these terms have to be understood in relative terms. Figure 11.6 gives the results of the prevalence of the anthropometric categories by wealth quintile.<sup>14</sup> The frequencies in which the different anthropometric categories occur differ according to wealth quintile: there is more undernutrition with increasing poverty.

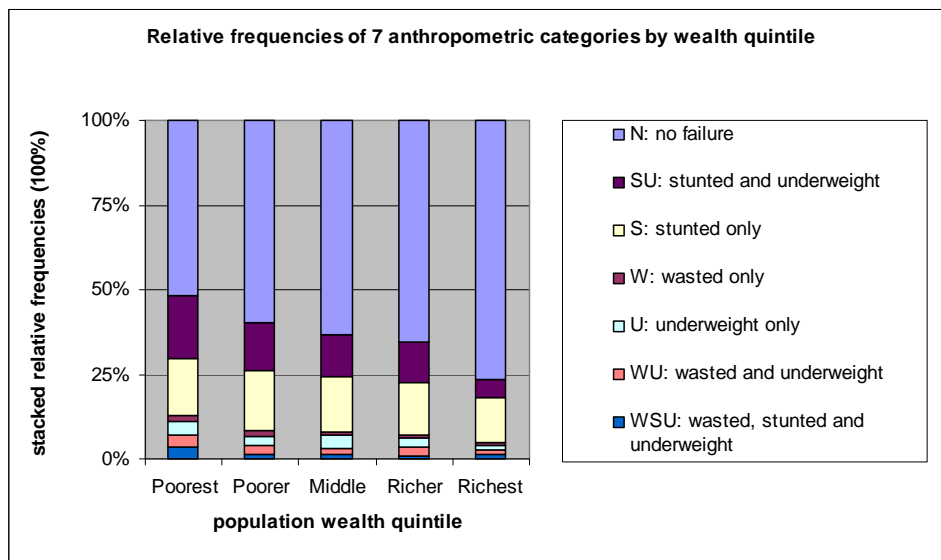


Figure 11.6 Relative frequencies of the seven anthropometric categories by population quintile based on the Kenyan 2003 household wealth index  
Source: Kenya DHS (2003) (Measure DHS+ 2004)

To gain further insight into the pattern of frequencies in Figure 11.6, the results of the poorest (first bar) were contrasted to those of the richest, which served as a reference group (fifth bar). The results are shown in a one-dimensional arrangement according to Svedberg and Nandy in Table 11.5 and in a two-dimensional arrangement as an Anthro Table in Table 11.6. The prevalence percentages in the column of 'non-N' represent Svedberg's Composite Index of Anthropometric Failure (CIAF): 24% among the richest group (indicated by Q5). Among the richest households, therefore, almost 1 in 4 under-fives are undernourished.

The prevalence of all individual anthropometric failure categories as well as the CIAF are higher among the poorest (indicated by Q1), at the expense of a

<sup>14</sup> The data were analyzed using SPSS software version 15.0.

lower prevalence in their N category. In the following analysis, for each of the two selected quintile classes the prevalence percentages are divided by the prevalence in the corresponding N category, which is used as the referent group. The ratio of two prevalences gives a measure known as ‘odds’.<sup>15</sup> The odds of composite anthropometric failure among the richest households are 0.307: for every one undernourished child, more than three are well nourished. In the poorest quintile, the CIAF prevalence is 48% (almost 1 in 2), which gives an odds of almost 1:1 (0.926).

The contrast in risk between the poorest and the richest is given by the Odds Ratio (OR) which is the ratio of the odds among the poorest and the odds among the richest. For the six failure categories combined (CIAF), the OR is 3.0 (almost 1:1 divided by almost 1:3). In other words, the odds of being undernourished among the poorest is three times the odds among the richest. The ORs for the individual failure categories range between 1.92 for S and 4.90 for SU.

SPSS has a module for multinomial logistic regression analysis,<sup>16</sup> which allows an investigation of the influence of covariates. Children’s age had virtually no influence but their place of residence (urban/rural) did affect the odds of anthropometric failure. After correcting for type of residence (see the bottom row of Table 11.5), the influence of poverty on anthropometric outcomes became more pronounced, except for the WSU category. Among the poorest, the odds of the CIAF categories combined are almost fourfold compared to the richest quintile.

Table 11.5 shows that ORs are generally higher as one moves from single to double anthropometric failure, although the OR of WSU is not as high as its triple failure would lead one to expect compared to the double failure categories. The effect of poverty is surprisingly strong (OR=6.5) for children in the single failure category U (who are underweight but not [yet] wasted or stunted). Note that these children are classified as ‘normal’ according to Waterlow. They do not have the levels of stunting and/or wasting of the SU and WSU categories but the effect of poverty is at least as strong.

While the prevalence percentages of the seven categories are shown in Figure 11.6 and in Table 11.5 in a one-dimensional layout, Table 11.6 shows

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<sup>15</sup> Odds are a ratio of probabilities: the odds in favour of an event are the quantity  $p/(1-p)$ , where  $p$  is the probability of the event.

<sup>16</sup> The dependent variable in this analysis (anthropometric failure category) is a nominal variable with more than two categories. Logistic regression allows the contribution of a risk factor or of a set of risk factors in terms of the natural logarithms of the odds ratio to be estimated. Applying the natural exponential function to the regression estimates gives the odds ratio.

Table 11.5 Poverty and anthropometric categories

		Total	WSU	SU	WU	U	S	W	non-N (CIAF)	N (no failure)
Number	Q1	1202	42	223	45	46	203	21	578	624
	Q5	841	10	47	12	10	109	10	198	643
Prevalence %	Q1	100%	3.5%	18.5%	3.7%	3.8%	16.8%	1.7%	48.1%	51.9%
	Q5	100%	1.2%	5.6%	1.4%	1.2%	12.9%	1.2%	23.5%	76.5%
Odds	Q1		0.067	0.357	0.071	0.073	0.324	0.033	0.926	1.00
	Q5		0.016	0.073	0.018	0.015	0.169	0.016	0.307	1.00
Odds Ratio	Q1:Q5		4.29	4.90	3.87	4.78	1.92	2.05	3.01	1.00
Odds Ratio (corrected for residency)	Q1:Q5		3.60	5.77	5.74	6.49	2.53	2.74	3.80	1.00

Source: Kenya DHS (2003) (Measure DHS+ 2004).

Legend: W, WU, U, S, WSU, SU = anthropometric failure categories according to Svedberg and Nandy: combinations of wasting (W) and/or stunting (S) and/or underweight (U). N = category with no such anthropometric failure (see Table 11.3). Non-N = total of the six anthropometric failure categories.

Q1 = poorest household quintile; Q5 = richest household quintile

Odds = prevalence of children in the anthropometric failure category divided by the prevalence of children in the no-failure category N

Odds ratio (OR) = odds among children in Q1 divided by the odds among children in Q5. Using the multinomial logistic regression module of SPSS, a corrected OR was estimated with type of residence as a covariate.

the results of risk analysis in the same two-dimensional layout as in Table 11.4 according to Svedberg and Nandy's classification, with shading according to Waterlow's classification. This presentation by way of an Anthro Table allows a differential inspection of wasting, stunting and underweight in terms of the strength of their association with poverty. The various anthropometric values are indicated in the margins (cf Table 11.4), while the ORs of Q1 compared to Q5 are given in the body of the table. Starting from the referent category N, mean WHZ can be seen to follow a decreasing gradient from right to left, mean HAZ from top to bottom and mean WAZ from the upper right to the lower left-hand corner of the table. There are three trajectories for inspecting the OR tendencies while moving from the referent group N to the anthropometrically worse WSU group: (i) through the upper left quadrant, i.e. passing through W and WU (the 'wasting wing'); (ii) through the lower right quadrant, i.e. passing through S and SU (the 'stunting wing'); and (iii) passing through the centre U (where both WHZ and HAZ are on the low side but are not yet below -2.0). Inspecting the results of Table 11.6 in this way shows that the 'wasting' and 'stunting wings' have similarly increasing OR gradients: from 1.0 for the



Table 11.6 Anthro Table of poverty-related odds ratios for Kenya, 2003

Waterlow categories		← wasted			non-wasted →									
Svedberg/ Nandy's categories		WU	WSU	W	U	SU	N	S						
mean WHZ		-2.8	-2.5	-2.4	-1.6	-0.8	0.0	0.5						
mean HAZ		<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border-left: 1px dashed black; border-right: 1px dashed black;"></span> </div>			<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border-left: 1px dashed black; border-right: 1px dashed black;"></span> </div>									
non-stunted →	W								1.4		2.74			
	N								-0.5				1.00	
	WU								-0.7	<b>5.74</b>				
	U	-1.6			<b>6.49</b>									
	S	-2.6						2.53						
← stunted	WSU	-3.1	<b>3.60</b>					-1.2						
	SU	-3.2			<b>5.77</b>									
mean WAZ		<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border-left: 1px dashed black; border-right: 1px dashed black;"></span> </div>			<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border-left: 1px dashed black; border-right: 1px dashed black;"></span> </div>									
					mean WAZ →	-3.6	-2.6	-2.2						
					← underweight									

Source of data: Subset of the Kenya Demographic and Health Survey 2003 (Measure DHS+ 2004), cases weighted: 1202 under-fives belonging to the lowest population quintile of the household wealth index (Q1: the 'poorest') compared to 841 children in the highest quintile (Q5: the 'richest').

For legend and formatting, see Table 11.4. For the abbreviations W, N, WU, U, S, WSU and SU, see Table 11.3. Odds ratio = odds among the children from the poorest household quintile divided by the odds among the children from the richest household quintile, corrected for urban/rural residency. Odds = proportion of children with a particular anthropometric failure divided by the proportion of children in the no-failure category N.

referent group through 2.5-2.7 for the single failure categories to 5.7-5.8 for the double failure categories. This is surprising because higher odds ratios on the stunting side, in line with the accepted theory that stunting is more strongly associated with poverty than wasting, might have been expected. A second result (mentioned above) is that the U category (the combination of moderate

thinness and moderate shortness) is more strongly affected by poverty (6.5) than the double failure categories UW and SU (5.7), even if it has slightly more favourable WAZ values (-2.3 compared to -2.5). The third curious result is that the OR of the anthropometrically most unfavourable WSU category is nowhere near the highest of all.

The multiplicity of failures (single, double or triple) is not necessarily a good guide and this investigation has tried to disentangle the effects of stunting, wasting and underweight. However, the WSU category is of no help in the differential analysis of these effects because it is a combination of all three anthropometric failures. The overall picture is that poverty tends to drive children out of the 'no anthropometric failure' category in the direction of underweight in general. Being underweight is then not only due to stunting (SU) but for some children it is rather due to wasting (WU) and, for other children, to moderate underweight (U). Thus the conclusion of the differential inspection of Table 11.6 is that the data do not support the view that stunting was a better indicator than underweight in Kenya in 2003. Finally it is appropriate to mention that the situation in the referent group was not ideal. Even in the relatively wealthiest quintile, a sizeable proportion of under-fives (24%) suffered from anthropometric failure of various kinds.

#### *Anthropometric failure and diarrhoea*

The second application of the Anthro Table investigated in this study concerned the relationship between anthropometric status and recent episodes of diarrhoea (namely in the two weeks before the interview). Binary logistic regression analysis was used to generate a model of the occurrence of diarrhoea as a function of the child's anthropometric category.<sup>17</sup> As the child's age influences the result, this was included in the model as a continuous variable. The data were analyzed using SPSS software version 15.0. The output of the logistic regression is the set of odds ratios of having diarrhoea. The odds ratio is a measure of risk and expresses how many times the odds of having diarrhoea in one group is more than the odds of diarrhoea occurring in the referent group N. For instance, of the 3045 children in the referent group N, 448 had diarrhoea; the odds being  $448/(3045-448)=0.17$  or one child with diarrhoea for every six without diarrhoea. Of the 68 children who were wasted only, 19 had diarrhoea so the odds were  $19/(68-19)=0.38$  or one with diarrhoea for almost three without diarrhoea. The odds ratio (not corrected for age) was  $0.38/0.17=2.25$  for the W category.

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<sup>17</sup> Because the dependent variable (diarrhoea) is a yes/no variable, binary logistic regression was used here. To represent the independent variable (anthropometric category), a yes/no variable was created for each of the six categories of anthropometric failure and for the N category (no failure). The latter was used as the referent group for the odds ratio, which in this analysis is a measure of the risk of diarrhoea.

After correction for age in the logistic model, the age-adjusted result was 1.80. In other words: wasted children were almost twice as likely to have had diarrhoea as those without anthropometric failure. Table 11.7 presents the odds ratios of diarrhoea for the seven anthropometric categories.

The inclusion of underweight in this classification is useful as it shows the dynamics within three of the four categories of Waterlow's classification: compare WU to W, U to N and SU to S. The OR's for the latter two pairs show what would be expected: a gradual increase in the odds of diarrhoea going from upper right to lower left in Table 11.7, i.e. with increasing undernutrition. However, being wasted without or with underweight (W or WU) increases the odds of diarrhoea almost twofold. It is doubled again when wasting occurs with (severe) stunting (WSU). Moderate stunting in itself (S) increases the odds of diarrhoea less (1.4 times). Moderate underweight alone (U) hardly raises the odds of diarrhoea, less so than the comparison of its mean WAZ values with those of W and S might predict.

It can be concluded that the association with diarrhoea is stronger for moderate wasting than for moderate stunting (i.e. when comparing single failure categories) but that differential effect is not evident among the double failure categories. The U category behaves differently from the previous poverty analysis: the risk of diarrhoea is only slightly increased. Judging by the mean WAZ of SU and WU, there may be a threshold effect, such that a doubling of the OR may occur somewhere at a WAZ around -3.

#### *The value of the Anthro Table*

Anthropometry is the method of choice for monitoring the attainment of the hunger-related target of MDG-1. The indicator prevalence of underweight is a combination of wasting and/or stunting (although some children are underweight without being wasted or stunted). It is important to look into the 'black box' of weight-for-age as the three anthropometric indices are closely intertwined. A combined analysis is possible and useful. A schematic table (Anthro Table) visualizes results according to the two-dimensional cross-classification of wasting by stunting, while also showing underweight. In this way it conveys essential information about all three anthropometric indices. It can be used both to visualize the frequency distribution of children and to analyze relationships with other variables. In particular it allows a differential diagnosis of wasting versus stunting. This Anthro Table was tested using examples of wealth and health data from DHS Kenya (2003) and the examples analyzed illustrate how the seven anthropometric categories allow a more refined analysis than Waterlow's classification by carving out the interesting U category from the 'normal' children and distinguishing single from double anthropometric failures (WU versus W and SU versus S). It can thus be seen that poverty had a

striking effect on the U category, while that category was close to normal in terms of the occurrence of diarrhoea. The U category is useful to study the general gradient with underweight (from N to WSU) and to glimpse possible threshold effects. The multiplicity of anthropometric failures *per se* is not a

Table 11.7 Anthro Table of the risk of diarrhoea (Odds Ratio) in Kenya (2003) in the previous two weeks by anthropometric status category

Waterlow categories		← wasted			non-wasted →									
		WU	WSU	W	U	SU	N	S						
Svedberg/ Nandy's categories														
mean WHZ		-2.8	-2.5	-2.4	-1.6	-0.8	0.0	0.5						
mean HAZ		1.80			1.00				-0.3					
W	1.4													
N	-0.5													
WU	-0.7									<b>1.79</b>				
U	-1.6			<b>1.24</b>										
← stunted		S	-2.6					1.38						
		WSU	-3.1	<b>4.38</b>				-1.2						
		SU	-3.2		<b>1.97</b>									
		mean WAZ			-3.6	-2.6		-2.2						

← underweight

Source: Kenya DHS (2003) (Measure DHS+ 2004)

Legend: The anthropometric categories are defined by combinations of HAZ, WAZ and WHZ above or below Z=-2 (for the meaning of the abbreviations, see Table 11.3). Entries are arranged according to the category's mean HAZ by WAZ values as indicated in the margins. For the number of children in the survey and prevalence percentages, see Table 11.4. The odds of diarrhoea in each anthropometric group are expressed as a ratio of the odds in group N (the referent group). These quotients are known as the odds ratio (OR). The ORs of underweight children (only or in any combination) are shown in bold. Light shading is used for underweight or stunting, while dark shading is used for the combination of underweight and stunting.

good criterion for predicting risk because the order between W, U and S or between WU and SU cannot be decided, nor can the possibly special character of the U category (in the middle of the table but constrained in Z-score values).

Although the processes of wasting and stunting are considered to occur with a time lag (wasting preceding stunting), the growth outcomes are apparently more entangled in reality than has so far been realized and they tend to go hand in hand. Waterlow's 1975 classification was based on the assumption that wasting and stunting are different processes and need to be distinguished by adding the measurement of height to weight and by calculating the two indices (HAZ and WHZ) in addition to WAZ. Since the early 1990s there has been growing recognition that a child's weight and height growth go in spurts (Lamp *et al.* 1992). Results of a seasonality study in Kenya (Niemeijer *et al.*, 1991; Hoorweg *et al.* 1995) found such spurts even at group level. The Svedberg & Nandy classification and the Anthro Table take these growth dynamics into account. The present study of the association with related factors suggests that the processes of wasting and stunting are intertwined and difficult to separate.

## Conclusion

When monitoring MDG-1, the indicator of underweight prevalence among under-fives has a number of advantages over the undernourishment indicator. However, it needs to be classified according to three anthropometric indicators simultaneously to shed light on the issue of underweight versus stunting when analyzing long-term trends. The Anthro Table is a useful tool and adds value to a one-dimensional analysis. The analyses above confirm the reliability of underweight as a sound overall value of growth performance in children. The measurement of height in addition to weight remains a useful recommendation but should not replace the prevalence of underweight by that of stunting in monitoring the attainment of the hunger-related target of MDG-1. It allows a better understanding of the reasons for a particular underweight prevalence or trend, and this, in turn, is important in evaluating and designing policies and programmes. Svedberg's (2000) classification, which was amended by Nandy *et al.* (2005), is a fruitful inroad into deeper analysis with the specially constructed Anthro Table presented in this chapter.

## References

- DHS 2007, *Demographic and Health Surveys, Measure DHS+*, Calverton, USA: Macro International Inc. Available at: <http://www.measuredhs.com>; accessed June 2007.
- FAO 1999-2005, *The state of food insecurity in the world 1999, 2000, 2001, 2002, 2003, 2004, and 2005*. Available at: <http://www.fao.org/SOF/sofi/>. Accessed 9 March 2006.

- FAO Food Balance Sheets 1999-2001, Available at: <http://faostat.fao.org/site/502/default.aspx>; accessed March 2006.
- Hoorweg, J., D. Foeken & W. Klaver 1995, *Seasons and Nutrition at the Kenya Coast*. Aldershot: Avebury.
- Lampl, M., J.D. Veldhuis & M.L. Johnson 1992, 'Saltation and stasis: A model of human growth', *Science* 258: 801-803.
- Measure DHS+ 2004, *Kenya Demographic and Health Survey 2003*. Nairobi, Kenya: Central Bureau of Statistics (CBS). File "kekr41rt.sav" downloaded with permission from <http://www.measuredhs.com/>.
- Nandy S., M. Irving, D. Gordon, S.V. Subramanian & G. Davey Smith 2005, 'Poverty, child nutrition and morbidity: New evidence from India', *Bulletin of the World Health Organisation* 83: 210-216.
- Niemeijer, R., D. Foeken & W. Klaver 1991, *Seasonality in the Coastal Lowlands of Kenya. Part 4/5: Food consumption and anthropometry*, Leiden: African Studies Centre, Food and Nutrition Studies Programme Report No. 38.
- Rutstein, S.O. & K. Johnson 2004, *The DHS Wealth Index*. DHS Comparative Reports No. 6. Calverton, Maryland USA: MEASURE DHS+.
- SCN 2008, *Draft Statement from the SCN Task Force on Assessment, Monitoring & Evaluation*, Geneva: United Nations System Standing Committee on Nutrition (SCN), March 2008. [http://www.unsystem.org/SCN/Publications/html/task\\_force/SCN%20TFAME%20statement%20on%20stunting%20FINAL.doc](http://www.unsystem.org/SCN/Publications/html/task_force/SCN%20TFAME%20statement%20on%20stunting%20FINAL.doc); accessed May 2008.
- Svedberg, P. 1991, *Poverty and Undernutrition in Sub-Saharan Africa: Theory, evidence, policy*, Stockholm: Institute for International Economic Studies, Stockholm University, Monograph Series No. 19.
- Svedberg, P., 1999, '841 million malnourished?' *World Development* 27(12): 2081-2098
- Svedberg, P. 2000, *Poverty and Undernutrition: Theory, measurement and policy*. A study prepared for the World Institute for Development Economics Research of the United Nations University (WIDER), Oxford: Oxford University Press.
- Unicef 2007, *Multi Indicator Cluster Surveys (MICS)*. Available at: <http://www.childinfo.org>; accessed June 2007.
- United Nations Statistics Division 2008, *Official list of MDG indicators*. Available at: <http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm>; accessed June, 2008.
- Waterlow, J.C. 1973, 'Note on the assessment and classification of protein-energy malnutrition in children', *Lancet* ii: 87-89.
- WHO 1983, *Measuring change in nutritional status*. Geneva: World Health Organization.
- WHO 2006a, *Child malnutrition estimates by NCHS/WHO reference. Countries A-Z list*. WHO Global Database on Child Growth and Malnutrition. Geneva: World Health Organization, Department of Nutrition for Health and Development. Available at: <http://www.who.int/nutgrowthdb/database/en/>. Accessed March 9, 2006 and June 6, 2007..
- WHO 2006b, *WHO Child Growth Standards: Length/Height-for-age, Weight-for-age, Weight-for-length, Weight-for-height and Body Mass Index-for age. Methods and development*, Geneva: World Health Organization.

WHO 2007, *Child malnutrition estimates by WHO Child Growth Standards. Countries A-Z list*. WHO Global Database on Child Growth and Malnutrition. Geneva: World Health Organization, Department of Nutrition for Health and Development. Available at: <http://www.who.int/nutgrowthdb/database/en/>. Accessed June 6, 2007.

## Appendix 1

Data for Figure 11.2: Percentages underweight and undernourishment in two subsequent surveys (with time spans of 5-10 years) for 27 SSA countries

	Underweight <sup>1)</sup>			Undernourished <sup>2)</sup>			year 1-year 2
	year 1	year 2	delta under-weight	year 1	year 2	delta under-nourished	
Cameroon	15.1	22.2	-7.1	32	25	7	1991-1999
Chad	38.8	28	10.8	49	34	15	1996-2000
Eritrea	43.7	39.6	4.1	68	73	-5	1996-2001
Ethiopia	47.7	47.2	0.5	57	42	15	1996-2000
Kenya	22.5	21.1	1.4	42	37	5	1995-2000
Rwanda	28.6	24.3	4.3	34	40	-6	1991-1999
Uganda	25.5	22.9	2.6	25	19	6	1996-2000
Tanzania	28.9	29.4	-0.5	35	43	-8	1991-2000
Angola	40.6	30.5	10.1	49	40	9	1996-2001
Botswana	17.2	12.5	4.7	22	24	-2	1996-2000
Lesotho	15.8	18	-2.2	27	25	2	1991-2000
Madagascar	40.9	40	0.9	33	40	-7	1991-1996
Malawi	27.6	25.4	2.2	49	33	16	1991-2000
Namibia	26.2	24	2.2	20	7	13	1991-2000
Zambia	25.2	28.1	-2.9	48	49	-1	1991-2001
Zimbabwe	15.5	13	2.5	46	38	8	1995-1999
Benin	29.2	22.9	6.3	17	15	2	1996-2001
Burkina Faso	32.7	34.3	-1.6	23	23	0	1991-1999
Côte d'Ivoire	23.8	21.2	2.6	17	15	2	1995-1999
Gambia	26.2	17.2	9	32	27	5	1996-2000
Guinea	29.1	32.7	-3.6	35	28	7	1996-2000
Mali	40	33.2	6.8	27	21	6	1996-2000
Mauritania	47.6	31.8	15.8	14	10	4	1991-2000
Niger	42.6	40.1	2.5	42	34	8	1991-2000
Nigeria	35.3	25	10.3	13	8	5	1991-2000
Senegal	21.6	22.7	-1.1	23	24	-1	1991-2000
Sierra Leone	28.7	27.2	1.5	46	50	-4	1991-2000

<sup>1)</sup> Percentage of children below 5 years with weight-for-age < median -2sd of WHO/NCHS reference, source WHO (2006a).

<sup>2)</sup> Estimated proportion of population below minimum level of dietary energy consumption, FAO (1999-2005).

## Appendix 2

Data for Figure 11.3: Prevalence rates of low height-for-age (<median -2sd using WHO/NCHS reference) in children below 5 years

	year 1 (%)	year 2 (%)	Period	N year 1	N year 2
Nepal	54.2	50.5	97/98-2001	17241	6409
Korea DPR	45.2	38.6	2000-2002	4175	5232
Yemen	44.6	51.7	1996-1997	3833	7501
Bangladesh	44.6	48.5	99/00-2001	5421	71931
Vietnam	35.9	36.5	1998-2000	12919	94469
Myanmar	34.2	32.2	2000-2003	8081	5390
Indonesia <sup>1)</sup>	26.1	27.3	2001-2002	11693	74537
Indonesia <sup>1)</sup>	24.6	26.1	2000-2001	70602	11693
Mongolia	24.6	24.6	1999-2000	4037	5784
Sri Lanka	23.8	20.4	1993-1995	3067	2782
Malaysia <sup>1)</sup>	23.3	22.4	1993-1994	313246	317551
Malaysia <sup>1)</sup>	22.4	20.1	1994-1995	317551	344736
Iran	18.9	15.4	1995-1998	11139	2536
Thailand	16.0	13.4	1993-1995	11748	4178

<sup>1)</sup> Prevalence rates of low weight-for-age instead of low height-for-age are given for Indonesia and Malaysia.

Note: Survey pairs arranged in order of prevalence in year 1.

Source: DHS (2007), WHO (2006a)



### Appendix 3

*Data for Figure 11.4: Prevalence rates of low height-for-age (<median -2sd using WHO/NCHS reference) in children under 5 years of age*

	year 1 (%)	year 2 (%)	Period	N year 1	N year 2
Malawi	59.1	49.0	97/98-2000	6309	9322
Mozambique	55.0	35.9	1995-1997	4586	2837
Zambia	53.0	46.8	1999-2001	1095000	5784
Madagascar	49.8	48.3	1995-1997	5049	3080
Madagascar	48.6	49.8	93/94-1995	3131	5049
Malawi	48.3	59.1	1995-97/98	3654	6309
Tanzania	43.4	43.8	1996-1999	5344	2821
Zambia	42.4	53.0	96/97-1999	5443	1095000
Nigeria	42.0	38.3	2001-2003	4954	4789
Niger	41.1	39.7	1998-2000	4022	4616
Chad	40.1	29.1	96/97-2000	5664	5043
Kenya	35.2	30.3	2000-2003	5917	5306
Togo	34.0	21.7	1996-1998	3761	3260
Central Afr. Rep.	33.6	28.4	94/95-1995	2310	2225
Nigeria	33.5	42.0	1999-2001	8617	4954
Kenya	33.0	35.3	1998-2000	4413	5917
Ghana	29.9	22.4	2003-2006	3183	3166
Guinea	26.1	40.9	1999-2000	2939	1457
South Africa	25.4	22.8	93/94-94/95	3689	9807
Egypt	24.9	20.6	97/98-1998	3328	3997
Egypt	20.6	18.7	1998-2000	3997	10193

Note: Survey pairs arranged in order of prevalence in year 1.

Source: DHS (2007), WHO (2006a), Unicef (2007)

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